



**THE OHIO STATE UNIVERSITY**

COLLEGE OF ENGINEERING

# Department of Computer Science and Engineering

**2016-2017 Annual Report**



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## Our Mission

The Department of Computer Science and Engineering will impact the information age as a national leader in computing research and education. We will prepare computing graduates who are highly sought after, productive, and well-respected for their work, and who contribute to new developments in computing. We will give students in other disciplines an appropriate foundation in computing for their education, research, and experiences after graduation, consistent with computing's increasingly fundamental role in society. In our areas of research focus, we will contribute key ideas to the development of the computing basis of the information age, advancing the state of the art for the benefit of society, the State of Ohio, and The Ohio State University. We will work with key academic partners within and outside of OSU, and with key industrial partners, in pursuit of our research and educational endeavors.



# NEWS & HIGHLIGHTS

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## ROCK STARS OF HPC: DK PANDA

The Rock Stars of HPC series is about the men and women who are changing the way the HPC community develops, deploys and operates the super-computers and social and economic impact of their discoveries.

Over the past seven years insideHPC, has spent a lot of time on the road at high performance computing events. In that time, perhaps no other speaker has been more prolific than DK Panda from Ohio State University. As the newest Rock Star of HPC, DK sat down with insideHPC to discuss his passion for teaching High Performance Computing.



## HANS MEUER OUTSTANDING RESEARCH PAPER AWARD AT ISC '17



The award winning paper from DK Panda's group, Designing Dynamic and Adaptive MPI Point-to-point Communication Protocols for Efficient Overlap of Computation and Communication, had the lead author of Dr. Hari Subramoni, a research scientist in the group and co-author Sourav Chakraborty, a Ph.D. student.

The Hans Meuer Award honors the most outstanding research paper submitted to the conference's Research Papers Committee. This award has been introduced in the memory of the late Dr. Hans Meuer, general chair of the ISC conference from 1986 through 2014, and co-founder of the

TOP500 project.

The paper was one of two finalists and the team presented their work in the Research Paper Session at the ISC '17 conference in Frankfurt, Germany on Monday June 19th. The winning paper received a cash prize of 5,000 Euros, an award certificate, and a free conference pass for ISC High Performance in 2018.

## DR. NEELAM SOUNDARAJAN EARNS LUTRON'S TEACHING AWARD

Dr. Soundarajan was given The Ohio State University, Computer Science and Engineering's fifth Joel and Ruth Spira Excellence in Teaching Award from Lutron. This honor is awarded annually to a faculty member who has excelled in teaching and inspiring students during the academic year.

Neelam is a highly regarded computer science educator who has successfully applied his expertise to the development of the undergraduate curriculum of Computer Science and Engineering in order to deliver the best education to undergraduate students.

In addition to previously serving as Associate Chair of Academic Affairs for the CSE Department, Neelam currently serves as the chair of the undergraduate study committee which is responsible for reviewing and improving the undergraduate programs in the CSE Department. Neelam is a computer science evaluator in the Accreditation Board for Engineering and Technology. This international organization evaluates higher educational programs in the fields of applied science, computing, engineering, and technology for the purpose of setting high and quantifiable standards.



A tireless worker in the CSE department, Neelam's research is in the area of formal methods for software engineering with particular interest in specification and verification questions. He is best known for his contributions and practice in computer science education, serving as an important leader in the CSE undergraduate program.

In addition to being recognized by Lutron with this Excellence in Teaching Award, Neelam received the highly selective and prestigious Boyer Award for Excellence in Undergraduate Teaching Innovation in the College of Engineering at Ohio State in 2006, and twice received the CSE department teaching award.

## DEEP LEARNING REINVENTS THE HEARING AID



In its March 2017 Issue, IEEE Spectrum, the official monthly magazine of the Institute of Electrical and Electronics Engineers (IEEE), highlights CSE Professor Leon Wang's contribution to solving the cocktail party problem in its cover story (posted at <http://spectrum.ieee.org/consumer-electronics/audiovideo/deep-learning-reinvents-the-hearing-aid>). With more than 420,000 members, IEEE is the largest technical professional organization in the world.

The cocktail party problem, or the problem of separating target speech from background interference, is the greatest challenge facing hearing aid wearers. Hearing loss is one of the most prevalent chronic conditions affecting 37.5 million Americans, and more than 10% of the world's population. Although the cocktail party problem has been tackled for decades in signal processing and related fields, no system or algorithm managed to help hearing-impaired listeners better understand speech in noisy environments.

Wang's breakthrough was based on a completely new formulation of the speech separation problem. Through his unique insights into perceptual mechanisms underlying human analysis of the acoustic scene, Wang and his students formulated speech separation as a classification problem. This reformulation has a profound consequence: the cocktail party problem could

be treated as a form of supervised learning. Furthermore, Wang's group was the first to introduce deep learning to the field of speech separation or enhancement. With the powerful capacity of deep neural networks to model large training data, his team finally succeeded in substantially elevating speech recognition performance of listeners with hearing loss (as well as listeners with normal hearing) in noisy backgrounds.

Prof. Wang is a University Distinguished Scholar, and Co-Editor-in-Chief of Neural Networks. He is also an IEEE Fellow.

## GRACE HOPPER 2016

From October 19th - 21st, eleven members of The Ohio State University's ACM-W chapter joined over 15,000 women technologists in Houston, Texas for the 2016 Grace Hopper Celebration Conference. The GHC Conference is the world's largest conference for women in computing bringing together students, researchers, and industry professionals to learn, connect, and inspire.

ACM-W, the women's chapter of the Association of Computing Machinery, aims to encourage and support women in technology through focused efforts on professional and personal development, community building, and outreach programs. With the support from the College of Engineering, the Department of Computer Science and Engineering, and the Undergraduate Student Government, ACM-W was able to further its mission by attending the Grace Hopper Celebration Conference.

The ACM-W group sent 11 attendees this year including 1 Ph.D. student, 3 seniors, 3 juniors and 4 sophmores.

"Attending the 2016 Grace Hopper Conference was such a unique and wonderful experience. Being surrounded by 15,000 other women in the same field was inspiring because it made it seem that you are not alone in your efforts and that all the late night study sessions are worth it. Hearing all the different women speak about their accomplishments was inspiring, and motivating



to continue to work hard. Attending the Grace Hopper Conference was an excellent idea and it opened me up to many more avenues in computer science.” - Mary Catherine Good, B.S. CSE 2019

Members came back with a new sense of confidence, tools for personal growth, and the motivation to find and craft unique paths to achieve their highest ambitions. These benefits go beyond individual growth and in fact affects the larger Ohio State community. It is difficult to inspire and guide others, if one suffers from self-doubt. Every woman who attended GHC returned with a sense of belonging and purpose. They can, in turn inculcate these feelings to other women in technology, who are unsure about if they belong in the field. ACM-W members have further opened channels of opportunities for the community by building connections with researchers, industry professionals, and students from all over the world.

ACM-W attendees have realized a responsibility to fight the prejudices that enforce the gender gap, encourage interest in those held back by self-doubt and misconceptions, and increase retention by creating supportive networks. With their different perspectives, backgrounds, and ideas, members can build each other up and take their unique insights to advance towards a more inclusive tech community.

## **COMPUTER ENGINEERING GRADUATE PROGRAM AT OHIO STATE IS RANDED #21**

According to a Special Issue of the US News and World Report on 2018 Best Graduate Schools, the computer engineering program at Ohio State is ranked #21 among 134 programs in the country. US News and World Report surveys graduate programs in engineering, law, business, medicine and education annually based on the peer assessment from department chairs and graduate directors in the Ph.D. granted departments of computer science and engineering in the country.

## **FOURTH ANNUAL HACKOHI/O 2016**

On the weekend of November 19-20, 2016 over 750 students from around the Midwest and beyond converged in the Ohio Union for Ohio State's fourth annual hackathon, HackOHI/O 2016.

For 24 hours, students worked in teams to build prototypes to solve real-world problems for the chance to win over \$8,000 in prizes.

Top companies from around Ohio (and the nation) sponsored the event and attended to mentor and recruit the talent on display - including Amazon Web Services, JPMorgan Chase & Co., Wexner Medical Center, Aver, JobsOhio, Capital One, Battelle, Harris, Paxata, Esri, CAS, GitHub, Namecheap, Accenture, Rev1 Ventures, Nationwide Insurance, TEKSystems, Hyland, Nationwide Children's Hospital, Translational Data Analytics, CoverMyMeds, Exact, Cisco, Microsoft, Pillar and IBM.

Nearly doubling in attendance every year since its start, the event has also attracted a wider diversity in attendance. Not just computer science students - but also majors such as violin performance and psychology.

The number of women in attendance has also increased year after year, exceeding the gender ratio in typical computer science classrooms by 25%. Many undeclared students attended to try out the tech field and make more informed decisions in their studies.





## MVAPICH SPEEDS TO #1

At the recent Supercomputing '16 Conference, it was revealed that the MVAPICH software, created by Dr. DK Panda and the NOWLab team, is powering the fastest computer on Earth, the Sunway TaihuLight, at the National Supercomputing Center in Wuxi, China. This system is a 10,649,600-core with a peak performance at 125.4 PetaFlops, which translates to 125 quadrillion calculations per second. Its intended purposes are oil prospecting, life sciences, weather forecast, industrial design, and drug research.

MVAPICH (Message Passing Interface for InfiniBand), pronounced “em-vah-pich”, celebrates its 15th anniversary this year. The software improves the processing by connecting traditional supercomputing software with innovative networking technologies and protocols, thus increasing the data flow speed in a significant manner. It delivers the best performance, scalability and fault tolerance for high-end computing systems and servers using InfiniBand, Omni-Path, Ethernet/iWARP, and RoCE networking technologies. This software is being used by more than 2,675 organizations in 83 countries worldwide to extract the potential of these emerging networking technologies for modern systems. As of November 2016, more than 402,000 downloads have taken place from the project's site. This software is also being distributed by many vendors as part of their software distributions.

Dr. DK Panda and the members of the NOWLab: Network Based Computing Lab is a vital part of CSE's research efforts. Over the years members have won multiple awards and best paper recognitions at various conferences, including SC '16. In 2011, the The Ohio State University College of Engineering recognized Dr. Panda with the Innovator Award and in 2015 The Ohio State University named him a Distinguished Scholar.



Pictured left to right  
Back Row: Sourav Chakraborty, Dr. Hari Subramoni, Akshay Venkatesh, Jie Zhang, Mingzhe Li, Jeff Smith, Ammar Awan, Wasiur Rahman, Mamzi Bayatpour

Front Row: Dipti Shankar, Shashank Gugnani, Jahanzeb Hashmi, Dr. Khaled Hamidouche, Prof. D. K. Panda, Dr. Xiaoyi Lu, Ching-Hsiang Chu, Nusrat Islam

## BEST COMMUNITY PAPER AWARD AT MOBICom 2016

In October, Computer Science and Engineering students and faculty of The Ohio State University received the Best Community Paper Award at the ACM Conference on Mobile Computing and Networking (MobiCom), 2016. MobiCom is a flagship conference in the area of mobile computing and wireless networking. The conference accepted only 32 papers out of 226 submissions (14.2%). From those, two were recognized for their excellence: one paper for the Best Community Paper Award, and another one for the Best Paper Award.

Led and supervised by CSE Assistant Professor Chunyi Peng, the research work was conducted by CSE Ph.D. student Haotian Deng collaborating with Ph.D. candidates Yuanjie Li and Zengwen Yuan of UCLA. The paper, titled “MobileInsight: Extracting and Analyzing Cellular Network Information on Smartphones,” details their creation of the first in-device software tool, MobileInsight, which monitors and analyzes cellular network protocol behaviors and states using commercial off-the-shelf phones. Since it offers open-access to fine-grained runtime network operations without any extra hardware or additional data from carrier networks, it bridges the gap between the research community and industry making it possible and easy for researchers and developers to accurately understand and refine how cellular protocols operate at the device and inside the network. Since its release in June 2016, more than 40 groups across the world including the USA, UK, Germany, France, Korea and China have downloaded and used this tool.

For Haotian Deng this has been a successful year. He has also co-authored two other conference accepted papers, one in NSDI'16 and one in SIGMETRICS'16. They are the top venues in the fields of computer and networking systems.



Pictured from left to right: Chunyi Peng (CSE faculty, OSU), Charlie Hu (MobiCom'16 Program co-Chair), Karthik Sundaresan (MobiCom'16 Program co-Chair), Zengwen Yuan (PhD student, UCLA), Yuanjie Li (PhD student, UCLA), Haotian Deng (CSE PhD Student, OSU).

## BEST PAPER HONORABLE MENTION AWARD IN THE IEEE VISUALIZATION CONFERENCE 2016

A collaborative research project between Ph.D. students Soumya Dutta, Chun-Ming Chen, in the visualization research group led by Prof. Han-Wei Shen, and Mechanical and Aerospace Engineering PhD student Gregory Heinlein and Prof. Jen-Ping Chen, has won a Best Paper Honorable Mention Award at the IEEE Visualization Conference 2016. IEEE Visualization is a premier visualization conference and is considered as the top publication venue for visualization and computer graphics researchers.

The paper “In Situ Distribution Guided Analysis and Visualization of Transonic Jet Engine Simulations” demonstrates an in situ distribution guided data summarization and visual analytics approach to help understand the rotating stall phenomenon in transonic jet engine compressors. The CFD simulation code TURBO, used in this work, is a state-of-the-art Navier-Stokes based, time-accurate computational fluid dynamics simulator.

Despite the proven high modeling accuracy of TURBO, the excessive simulation data prohibits traditional post-processing based analysis in both storage and I/O time. This work addresses these big data issues and proposes an alternative in situ analysis pathway for the study of rotating stall. The proposed technique summarizes statistics of important properties of the simulation data directly while the simulation is running using a probabilistic data modeling scheme. This in situ data summarization enables flexible and scalable anomaly detection for flow instability in post analysis, which reveals the spatiotemporal trends of rotating stall. Furthermore, the verification of the hypotheses and exploratory visualization using the summarized data are realized using probabilistic visualization techniques such as uncertain isocontouring.



Pictured from left to right: Prof. Jen-Ping Chen, Mechanical Engineering Department; Prof. Han-Wei Shen, CSE; Jimmy Chun-Ming Chen, former CSE Ph.D. now at Google; Soumya Dutta, Ph.D. CSE student; Jim Ahrens, paper chair of IEEE SciVis 2016

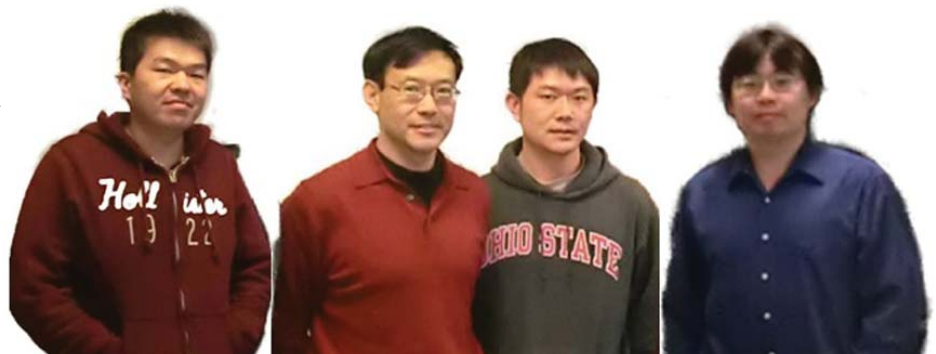
## RESEARCH INNOVATION DRIVES AN INDUSTRY-LEADING COMPUTATIONAL GEOMETRY ENGINE IN HIGH SPEED

The polygon overlay is a complex and time-consuming process to superimpose multiple geographic layers and their attributes to produce a new polygon layer. This process has become increasingly massive in the big data era from various applications, such as graphical information systems, electronic design automation, computer vision, image processing and motion planning solutions for robotics. The industry demands fast and efficient solutions for daily production tasks of spatial data analytics in many areas. A research innovation led by a group of Computer Science and Engineering researchers at Ohio State has timely responded to this need.

Dr. Akihiro Asahara, the CEO of Fixstars Solutions Inc. recently sent Dr. Kaibo Wang (CSE Ph.D'15) an acknowledgement letter to inform him that Fixstars has effectively developed the Geometric Performance Primitives (GPP) Library, an industry-leading and high speed computational geometry engine, based on Wang's work published in VLDB 2012. Dr. Asahara states, “Specifically, the PixelBox algorithm of yours lays a scientific foundation for massive polygon overlay operations, which enables us to achieve a huge performance advantage (up to 25 times faster) over other similar industry products.” GPP has also been included in the GPU-Accelerated libraries of the NVIDIA Company.

PixelBox is a fast parallel algorithm for massive polygon overlay operations, which is implemented in hybrid systems of both GPUs and multicore processors, and tested by pathology image analysis workloads from hospitals. This work entitled “Accelerating Pathology Image Data Cross-Comparison on CPU-GPU Hybrid Systems” was presented in the 38th International Conference on Very Large Databases in August 2012 in Istanbul, Turkey, and was published in the Proceedings of the VLDB Endowment, No. 5, No. 11 in 2012. The authors of the paper are Kaibo Wang, Yin Huai, Rubao Lee, Fusheng Wang, Xiaodong Zhang, and Joel H. Saltz.

Both Kaibo Wang and Yin Huai received their Ph.Ds. in Computer Science and Engineering at The Ohio State University in 2015 under the supervision of Professor Xiaodong Zhang. They now work at Google and Databricks, respectively. As students, each received the Department of Computer Science and Engineering Graduate Research Awards.



Pictured from left to right: Yin Huai, Xiaodong Zhang, Kaibo Wang and Rubao Lee

Rubao Lee is a Research Scientist in OSU-CSE. When the paper was published, Drs. Fusheng Wang and Joel Saltz were on Faculty in the Bioinformatics Department at Emory University, but are now faculty members at SUNY Stony Brook.

“I am very pleased to see how another basic research work of ours directly impacts on production systems, which is a high recognition to the value of our research efforts” says Xiaodong Zhang, the Robert M. Chritchfield Professor in Engineering and Chair of Computer Science and Engineering at The Ohio State University. Several published research results in computer systems and data management from his group have been widely adopted in production systems of both hardware and software. This research impact has also been reported by ACM Technology News in January, 2017.

## TWO CSE PROFESSORS NAMED IEEE FELLOWS

The Institute of Electronics and Electrical Engineers (IEEE) has named two Department of Computer Science and Engineering Professors to the level of Fellow in the Class of 2017. IEEE recognized Dr. Tamal Dey for his contributions to Geometric Computing and Dr. Prasun Sinha is recognized for his contributions to Scheduling and Resource Allocations in Wireless Networks.

The IEEE grade of Fellow is conferred by the IEEE Board of Directors upon a person with an outstanding record of accomplishments in any of the IEEE fields of interest. IEEE Fellow is the highest grade of membership and is recognized by the technical community as a prestigious honor and an important career achievement.

A leader in the field of geometric computing, **Dr. Tamal Dey** has made several fundamental research contributions over the last twenty five years. His research has advanced theoretical/practical understanding of several geometric/topological problems arising in application areas of science and engineering. Specifically, his work on surface reconstruction, mesh generation, and topological data analysis have found applications in computer graphics, geometric modeling, visualization, shape and data analysis. One of the hallmarks of Dey's work is his development of algorithms with theoretical guarantees that are useful in practice. This claim is attested to in the wide use of number of the software based on these algorithms. The most widely used geometric library and The Computational Geometry Algorithms Library (CGAL), incorporates several of his results. The Cocone software developed by his group for surface reconstruction is widely used in academia and industry. His team developed the DelPSC software which has been a basis for Synopsis to develop a new mesh generation software. Dr. Dey has written highly influential papers on a broad range of topics in geometric and topological computing and authored two books. He serves on several editorial boards of journals in geometric computing and lectures widely on the topic of geometric and topological computing in various academic forums.



The research of **Dr. Prasun Sinha** has led to new paradigms of communication in managed wireless networks like cellular networks and enterprise wireless local area networks. His work on resource allocation considers various practical limitations and new challenges in the areas of uplink transmission, renewable energy based networking, disconnected operations, asynchronous communication and full-duplex networking. Prasun's other research interests include vehicular networks, indoor localization, outdoor localization and low power sensing.

Dr. Sinha's research has been funded primarily through National Science Foundation (NSF), DARPA, Toyota, Huawei and Honda. He has led multiple \$1M+ cross-university, cross-disciplinary projects. In 2006, he won an NSF CAREER award. He has chaired/co-chaired six conferences, including MobiCom 2014, the flagship conference in wireless networking and mobile computing. Next year he will be the Technical Program co-chair for IEEE INFOCOM 2018, a leading conference in networking. He has authored 100+ publications and earned four (4) patents. One of his papers was awarded the Best Student Paper Award (WiOpt 2013) and two were selected as best paper finalists (ACM Mobicom 2014

and IEEE SECON 2007).



## NEW FACULTY JOINING CSE



**Raef Bassily** is currently a Data Science Postdoctoral Fellow in the Department of Computer Science & Engineering and the Center of Information Theory and Applications (ITA) at the University of California, San Diego. His current research focuses on developing practical algorithms for privacy-preserving machine learning and data analysis. His distributed protocols for histograms estimation have been recently deployed in the latest version of Apple's iOS to enable private crowdsourcing from Apple users. He received his Ph.D. in Electrical and Computer Engineering from the University of Maryland, College Park, in 2012.

Professor Bassily will be joining the Department of Computer Science and Engineering in the Fall of 2017 as an Assistant Professor.



**Jian Chen** is an Assistant Professor in the Department of Computer Science and Electrical Engineering at the University of Maryland, Baltimore County (UMBC), where she leads the Interactive Visual Computing Lab (<http://ivcl.umbc.edu>) and UMBC's Immersive Hybrid Reality Lab (<http://tinyurl.com/ztnvdmf>). She maintains general research interests in the design and evaluation of visualizations (encoding of spatially complex brain imaging, integrating spatial and non-spatial data, perceptually accurate visualization, and event analysis) and interaction (exploring large biological pathways, immersive modeling, embodiment, and gesture input). She has garnered best-paper awards at international conferences, and her work is funded by NSF, NIST, and DoD. She is also an UMBC innovation fellow and a co-chair of the first international workshop on the emerging field of Immersive Analytics. Chen did her post-doctoral research at Brown University jointly with the Departments of Computer Science (with Dr. David H. Laidlaw) and Ecology and

Evolutionary Biology. She received her Ph.D. in Computer Science from Virginia Tech with Dr. Doug A. Bowman.

Professor Chen will be joining the Department of Computer Science and Engineering in the Fall of 2017 as an Assistant Professor.



**Zhiqiang Lin** is an Associate Professor of Computer Science at The University of Texas at Dallas. He earned his Ph.D. from the Computer Science Department at Purdue University in 2011. His primary research interests are systems and software security, with an emphasis on developing program analysis techniques and applying them to secure both application programs including mobile apps and the underlying system software such as Operating Systems and hypervisors. Dr. Lin is a recipient of the NSF CAREER Award and the AFOSR Young Investigator Award.

Professor Lin will be joining the Department of Computer Science and Engineering in January 2018 as an Associate Professor.



**Dave Ogle** is an IBM Distinguished Engineer in the Watson Supply Chain organization. As a technical executive, Dave is responsible for setting the technical developing the skills for a 300+ person team of programmers, designers, testers, and support engineers. Dave works closely with customers and product management to bring new and innovative offerings to market. Dave has held numerous leadership positions inside IBM encompassing all sides of the development process, from architecture, to development, to quality assurance, to delivery and support. Dave has also been actively involved in leading internship programs inside IBM throughout his career and he currently directs the highly successful program at the IBM Dublin Ohio location, which has employed more than 60 students over the last 4 years.

Dave will be joining the department as Associate Clinical Faculty in Fall 2017.



## DEPT. OF COMPUTER SCIENCE & ENGINEERING

### 21<sup>ST</sup> ANNUAL AWARDS BANQUET

#### SCHOLARSHIPS

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Central Ohio Chapter of Association  
of Computing Machinery {ACM}

**Tyler Collison**

Ernest William Leggett, Jr. Scholarship The  
Leggett Family Award Endowment Fund

**Jarrod Manguiat**

**Alexander Morgan**

The O'Connell Family Award

**Zachary Allegretti**

**Caleb Lehman**

**Eleanor Myer**

**Alexander Toney**

Ten-Hwang Lai Scholarship

**Cole Albers**

**Brian Baker**

**Jonathan Huang**

**Dylan Knaplund**

**Chen Zhang**

Wael Bahaa-El-Din Scholarship

**Thomas Burnett**

**Paul Gillen**

Women in Computer Science Scholarship

**Sarah Flanagan**

**Claire Hansel**

The Steve and Bridget Dritz Scholarship

**Joshual Kahn**

Founders of the Computer Science and  
Engineering Department Scholarship  
Endowment Fund

**Matias Grioni**

**Sean Nemann**

**Vilas Winstein**

Alumni Undergraduate Scholarships

**Nathan Balli**

**Benjamin Clarke**

**Christopher Ellis**

**Kevin Hernandez**

**Tyler Terbrack**

CSE Undergraduate Scholarship

**Paul Costinescu**

**Adam Ovak**

Undergraduate Research Award

**Danny Flax**

#### DEPARTMENT AWARDS

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B. Chandrasekaran & Sandra Mamrak

Graduate Fellowship

**Aniket Chakrabarti**

Chair's Service Award

**Dr. Meris Mandernach**

Undergraduate Research Faculty Advising Award

**Dr. Rephael Wenger**

Eleanor Quinlan Award

**Timothy Carpenter**

Outstanding Teaching Award

**Michael Fritz**

**Chris Kiel**

**Dr. Anastasios Sidiropoulos**

Outstanding Service Award

**Dr. Arnab Nandi**

**Kathryn Reeves**

**Nikki Strader**

Joel and Ruth Spira Excellence

in Teaching Award

from Lutron Electronics

**Dr. Neelam Soundarajan**

Honorable Mentions for Contributions to OHI/O  
Hackathon

**ACM-W**

**Big Data Analytics Association**

**Buckeye Hackers**

**Collegiate Web Developers Group**

**Mobile Developers Club**

**Open Source Club**

## THE 21ST ANNUAL CSE AWARDS BANQUET



Left: AI Cline presents Jarrod Manguiat with The Leggett Family Award Endowment Fund.



Above: Tyler Collison receives the ACM award from faculty emeritus Clint Foulk.



Below: Wayne Heym gives Adam Ovak one of the CSE Undergraduate Scholarships.



Above: Advisory board member, Dana Vantrease, honors Sarah Flanagan and Claire Hansel with the Women in Computer Science Scholarship.



Right: Guests enjoying the 21st Annual CSE Awards Banquet.



# GRANT FUNDING 2016-2017

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NEW GRANTS RECEIVED IN  
2016-2017 YEAR

In order by name of CSE Investigator. CSE member names are in bold.

## LEGEND:

### CSE RESEARCHER

**Funding Source**

*Grant Title*

PI: Principal Investigator

Co-PI: Collaborators (when applicable)

Term of Grant      Total Funding

## **GAGAN AGRAWAL**

### **National Science Foundation**

*XPS: FULL: Integrating Programming Model, Runtime, Algorithmic, and Architectural Support To Use Inexact and Heterogeneous Hardware for Scientific Computations*

08/01/2016- 07/31/2019

PI: Agrawal

Co-PIs: Chou, Teodorescu

\$875,000

## **MIKHAIL BELKIN**

### **National Science Foundation**

*Collaborative research: NCS-FO: Learning efficient visual representations from realistic environments across time scales*

09/01/2016- 08/31/2020

PI: Sederberg

Senior Personnel: Belkin

\$510,469

### **Cold Spring Harbor Laboratory (National Institutes of Health)**

*Methods from computational topology and geometry for analyzing neuronal tree and graph data*

09/01/2017- 08/31/2020

PI: Yusu Wang

Co-PI: Belkin

\$442,486

### **Wright State University (Ohio Federal Research Network)**

*Forward and reverse engineering tool and workforce development/human centered big data & persistent location with spectrum sensing*

09/19/2017- 09/18/2019

PI: Hamm

Co-PI: Belkin

\$168,000

## **MIKE BOND**

### **National Science Foundation**

*XPS: FULL: Collaborative Research: Rethinking Architecture Support for Memory Consistency*

09/01/2016- 08/31/2020

Amount: \$410,932

PI: Bond

\$343,904

## **JAMES W. DAVIS**

### **Battelle Memorial Institute (Air Force)**

*Context-based object classification*

05/01/2017- 05/31/2018

PI: Davis

\$153,000

## **TAMAL DEY**

### **National Science Foundation**

*Conference on Topology, Geometry, and Data Analysis at The Ohio State University*

05/15/2106 – 05/14/2017

PI: Kahle

Co-PIs: Memoli, Yusu Wang, Dey

\$43,000

### **National Science Foundation**

*RTG: Algebraic Topology and Its Applications*

06/01/2016- 05/31/2021

PI: Kahle

Co-PIs: Memoli, Yusu Wang, Dey, M. Davis

\$1,722,606

## **ERIC FOSLER-LUSSIER**

### **National Science Foundation**

*RI: Small: Using automatically generated paraphrases and discriminative ASR training to author robust question-answering dialogue systems*

09/01/2016- 08/31/2019

PI: White  
Co-PIs: Fosler- Lussier, Danforth, Schuler  
\$450,000

**RAGHU MACHIRAJU**

**Agency for Healthcare Res & Quality**

*Supporting systematic review production  
with article similarity network visualization*  
09/30/2016- 09/27/2017

PI: Yen

Co-PIs: Machiraju, Ritter  
\$100,000

**DK PANDA**

**National Science Foundation**

*BD Spokes: SPOKE: MIDWEST: Collabora-  
tive: Advanced computational neuroscience  
network (ACNN)*

09/01/2016- 08/31/2019

PI: Panda

Co-PIs: Lu, Subramoni  
\$166,454

**National Science Foundation**

*SHF: Large: Collaborative research: Next  
generation communication mechanisms ex-  
ploiting heterogeneity, hierarchy and concu-  
rrency for emerging HPC systems*

08/15/2016- 07/31/2019

PI: Panda

Co-PIs: Hamidouche, Subramoni, Tomko  
\$1,171,893

**National Science Foundation**

*Student Travel Support for MVAPICH User  
Group (MUG) Meeting*

08/15/2016 – 7/31/2017

PI: Panda

\$10,000

**Engility Corporation (US Department of  
Defense)**

*Coupling infinBand hardware features and  
network-to-accelerator remote data memory  
access (RDMA) in the message passing inter-  
face (MPI)*

09/01/2016 – 08/31/2017

PI: Panda  
\$200,000

**Mellanox Technologies, Inc**

*Research on high performance and scalable  
MPI over InfiniBand.*

04/01/2016- 03/31/2017

PI: Panda

\$213,768

**University of Texas at Austin (National  
Science Foundation)**

*Enabling, Enhancing and Extending Petas-  
cale Computing for Science and Engineering*  
3/1/17 – 9/30/17

PI: Panda

\$112,500

**Gifts**

NVIDIA Corporation  
\$177,500

Intel Corp  
\$64,424

Microsoft Corporation  
\$120,000

**SRINIVASAN PARTHASARATHY**  
**National Institutes of Health**

*Adolescent health in an urban environment*

04/14/2017- 01/31/2018

PI: Catherine Calder

Co-PI: Parthasarathy, Browning, Boettner  
\$1,553,888

**National Science Foundation**

*EAGER: Towards automated characteriza-  
tion of the data-movement complexity of  
large scale analytics applications*

08/15/2016-07/31/2018

PI: Sadayappan

Co-PI: Parthasarathy  
\$300,000

**National Science Foundation**

*XPS: FULL: Collaborative Research: PARA-  
GRAPH: Parallel, scalable graph analytics*



09/01/2016- 08/31/2019

PI: Sadayappan

Co-PI: Parthasarathy

\$546,875

#### **Gifts**

Price Waterhouse Cooper \$25,000

#### **RAJIV RAMNATH**

##### **Nationwide**

*Integrating telematics data with other data sources to develop models of driver risk*

01/01/2017- 12/31/2017

PI: Ramnath

\$47,746

##### **Astute Solutions**

*Information retrieval techniques for social customer relationship management (CRM) systems*

01/01/2017- 12/31/2017

PI: Ramnath

\$47,746

#### **ALAN RITTER**

##### **Carnegie Mellon Software Engineering Institute**

*Events, Relationships, and Script Learning for Situational Awareness*

05/02/2017- 09/30/2017

PI: Ritter

\$40,000

##### **Leidos (Intelligence Advanced Research Projects Activity)**

*Extracting a Realtime Cybersecurity Knowledge Graph from Text*

08/03/2016- 07/31/2019

PI: Ritter

\$710,150

##### **Agency for Healthcare Res & Quality**

*Supporting systematic review production with article similarity network visualization*

09/30/2016- 09/29/2017

PI: Yen

Co-PI: Ritter, Machiraju

\$100,000

#### **ATANAS ROUNTEV**

##### **Lawrence Livermore National Laboratory**

*Exascale code generation toolkit*

05/05/2017- 04/30/2020

PI: Sadayappan

CO-PI: Rountev

\$370,900

#### **P. SADAYAPPAN**

##### **Lawrence Livermore National Laboratory**

*Exascale code generation toolkit*

05/05/2017- 04/30/2020

PI: Sadayappan

CO-PI: Rountev

\$370,900

##### **National Science Foundation**

*XPS: FULL: Collaborative Research: PARAGRAPH: Parallel, scalable graph analytics*

09/01/2016- 08/31/2019

PI: Sadayappan

Co-PI: Parthasarathy

\$546,875

##### **National Science Foundation**

*EAGER: Towards automated characterization of the data-movement complexity of large scale analytics applications*

08/15/2016-07/31/2018

PI: Sadayappan

Co-PI: Parthasarathy

\$300,000

##### **RNET Technologies (Defense Advanced Research Projects Agency)**

*Performance portable framework for developing graph applications*

06/06/2016- 06/05/2018

PI: Sadayappan

\$450,000

**NESS SHROFF****National Science Foundation**

*ICN-WEN: Collaborative Research: SPLICE: Secure predictive low-latency information centric edge for next generation wireless networks*

Amount: \$100,000

Role: PI

Duration: 06/01/2017- 05/31/2018

**Office of Naval Research**

*Achieving Low Delay and Highly Adaptive Tactical Networking with Multi-Path TCP*

Amount: \$900,000

Role: PI

Duration: 02/15/2017- 02/14/2020

**National Science Foundation**

*NeTS: Small: Enabling Mobile mmWave Communication: Achieving Low Power and Delay via a Hybrid RF Design*

Amount: \$302,712

PI: Koksall

Co-PI: Shroff

Duration: 10/01/2016- 09/30/2019

**Gifts**

Huawei \$130,000

Intel \$200,000

**PRASUN SINHA****National Science Foundation**

*NeTS: Small: Infrastructure-free Robust Relative Localization of Vehicles on the Road*

09/01/16 – 08/31/19

PI: Sinha

\$515,998

**Office of Naval Research**

*Joint neighbor identification and channel estimation for enabling advanced MAC-PHY techniques in ad hoc networks*

06/01/2017- 05/30/2020

PI: Srinivasan

Co-PI: Sinha

\$300,000

**KANNAN SRINIVASAN****Office of Naval Research**

*Joint neighbor identification and channel estimation for enabling advanced MAC-PHY techniques in ad hoc networks*

06/01/2017- 05/30/2020

PI: Srinivasan

Co-PI: Sinha

\$300,000

**CHRISTOPHER STEWART****National Science Foundation**

*CNS: Travel support for the 2017 international conference on Autonomic Computing*

05/01/2017- 04/30/2018

PI: Stewart

\$15,000

**HUAN SUN****Gifts**

Fujitsu \$50,000

**RADU TEODORESCU****National Science Foundation**

*XPS: FULL: Integrating Programming Model, Runtime, Algorithmic, and Architectural Support To Use Inexact and Heterogeneous Hardware for Scientific Computations*

08/01/2016- 07/31/2019

PI: Agrawal

Co-PIs: Chou, Teodorescu

\$875,000

**DELIANG WANG****National Institutes of Health**

*Improving intelligibility in noise for hearing-impaired listeners*

09/01/2016 - 08/31/2017

PI: Eric Healy

Co-PI: Leon Wang, Apoux

\$1,573,458

**Gifts**

Starkey \$50,000

## **YUSU WANG**

**Cold Spring Harbor Laboratory (National Institutes of Health)**

*Methods from computational topology and geometry for analyzing neuronal tree and graph data*

09/30/2016- 06/30/2019

PI: Yusu Wang

Co-PI: Belkin

\$447,506

### **National Science Foundation**

*AF: Small: Collaborative Research: Geometric and topological algorithms for analyzing road network data*

07/01/2016-06/30/2018

PI: Yusu Wang

\$189,099

### **National Science Foundation**

*Conference on topology, geometry, and data analysis at The Ohio State University*

05/01/2016- 04/30/2017

PI: Kahle

Co-PIs: Memoli, Yusu Wang, Dey,

\$40,000

## **XIAODONG ZHANG**

**Huawei**

*High-performance database system over GPU devices and fast RDMA networks technology research cooperation project*

04/01/2017- 03/30/2018

PI: X. Zhang

\$360,000

### **National Science Foundation**

*Travel Support for the 36th IEEE International Conference on Distributed Computing Systems (ICDCS 2015)*

08/15/2017- 07/31/2017

PI: Zhang

\$10,000

### **National Science Foundation**

*XPS: FULL: Collaborative Research: Maximizing the performance potential and reli-*

*ability of flash-based solid state devices for future storage systems*

07/01/2016- 06/30/2019

PI: Zhang

\$285,000

## **YINQIAN ZHANG**

**National Science Foundation**

*REU: CRII: SaTC: Rethinking side channel security on untrusted operating systems*

05/01/2016 – 04/30/2018

PI: Y. Zhang

\$8,000

# GUEST SPEAKER AND DISTINGUISHED GUEST LECTURERS

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**Raef Bassily**

*Learning from Private Data without Learning Private Data*

University of California, San Diego

**Leilani Battle**

*Behavior-Driven Optimizations for Big Data Exploration*

Massachusetts Institute of Technology

**Abhishenk Chandra**

*Computing with Geo-distributed Data*

University of Minnesota

**Ang Chen**

*Secure Diagnostics and Forensics with Network Provenance*

University of Pennsylvania

**Jian Chen**

*Interactive Visual Computing for Knowledge Discovery in Science, Engineering, and Biology*

University of Maryland, Baltimore County

**Manaal Faruqui**

*Inducing Morpho-syntactic Lexicons and Morphological Inflections*

Research Scientist at Google Inc.

**Dan Garrette**

*Learning from Weak Supervision: Combinatory Categorical Grammars and Historical Document Transcription*

Research Scientist at Google, NYC

**James Hoe**

*CoRAM++: Data-Structure-Specific Memory Interfaces for FPGA Computing*

Carnegie Mellon University

**Meng Jiang**

*Data-Driven Behavioral Analytics with Networks*

University of Illinois at Urbana-Champaign

**Samory Kpotufe**

*Self-tuning in nonparametric regression*

Princeton University

**Anasatsios Kyrillidis**

*Rethinking Algorithms in Data Science: Scaling up Optimization Using Non-Convexity, Provably*

University of Texas at Austin

**Ashwin Lall**

*The  $k$ -Regret Operator*

Denison University

**Bo Li**

*Secure Learning in Adversarial Environments*

University of Michigan

**Jiwei Li**

*Teaching a Machine to Converse*

Stanford University

**Xiaojing Liao**

*Evaluating Security Risks and Cyber Intelligence Through Semantic-Aware Inspection Techniques*

Georgia Tech

**Zhinqian Lin**

*Identifying Security Vulnerabilities in Remote Services via Automated Analysis of Mobile Apps*

University of Texas at Dallas

**Kangjie Lu**

*Defeating Advanced Memory-Error Exploits by Preventing Information Leaks*

Georgia Institute of Technology

**Mehrdad Mahdavi**

*Defeating Advanced Memory-Error Exploits by Preventing Information Leaks*

Georgia Institute of Technology



<b>Dr. Patrick McDaniel</b> <i>Tracing the Arc of Smartphone Application Security</i>	Penn State University
<b>Dr. Ray Mooney</b> <i>Generating Natural-Language Video Descriptions using LSTM Recurrent Neural Networks</i>	University of Texas, Austin
<b>David Naylor</b> <i>Privacy in the Internet (Without Giving up Everything Else)</i>	Carnegie Mellon University
<b>Mitsunori Ogihara</b> <i>Exploring Digital Humanities</i>	University of Miami
<b>Reza Shokri</b> <i>Data Privacy: How to Survive Inference Avalanche</i>	Cornell Tech
<b>Philip Thomas</b> <i>Safe Machine Learning</i>	Carnegie Mellon University
<b>Zhaoran Wang</b> <i>Taming Nonconvexity with Data</i>	Princeton Wang
<b>Venu Satuluri</b> <i>Machine Learning for Recommender Systems at Twitter</i>	Twitter
<b>Zheng Yang</b> <i>Enabling Sensorless Sensing with WiFi Radar</i>	Tsinghua Univeristy
<b>Zhou Yu</b> <i>Situated Intelligent Interactive Systems</i>	Carnegie Mellon Univeristy

# STUDENTS

## TEN YEAR STATISTICAL HISTORY - TEACHING OVERVIEW

	AU 2006	AU 2007	AU 2008	AU 2009	AU 2010	AU 2011	AU 2012*	AU 2013	AU 2014	AU 2015	AU 2016
<b>Number of Faculty</b>	33	35	35	35	36	36	34	38	40	40	40
<b>Course Enrollment/ Autumn Qtr.</b>	3,238	3,386	3,702	3,943	4,075	4,609	5,737	6,508	6,932	7,626	7,650
	06-07	07-08	08-09	09-10	10-11	11-12	12-13*	13-14	14-15	15-16	16-17
<b>Students Taught</b>	10,641	11,185	12,209	12,689	13,744	14,523	12,457	14,463	15,484	16,697	17,037

\*The term/year of the conversion to semesters.

## THE GRADUATE PROGRAM

The number of applications to the CSE graduate program has been high for many years. Admissions to the Ph.D. program is particularly selective. Our graduate program is research intensive, where faculty and students make their best efforts to push the frontiers and advance the knowledge of information technology. Many of our MS and Ph.D. graduates have become leaders in academia and industries.

	AU 2006	AU 2007	AU 2008	AU 2009	AU 2010	AU 2011	AU 2012*	AU 2013	AU 2014	AU 2015	AU 2016
<b>Graduate Students Enrolled</b>	184	235	239	303	304	339	305	327	347	329	298
	06-07	07-08	08-09	09-10	10-11	11-12	12-13*	13-14	14-15	15-16	16-17
<b>Graduate Student Applications</b>	619	705	677	817	1,031	1,190	1,196	1,264	1,218	1,205	1,385
<b>Graduate Students Supported</b>	135	135	132	182	218	209	222	201	231	203	245
<b>M.S. Degrees Awarded</b>	33	37	39	64	40	37	86	93	111	94	75
<b>Ph.D. Degrees Awarded</b>	17	32	26	19	20	14	19	26	28	32	31
<b>Ph.D. Degrees (cumulative)</b>	378	410	436	455	475	489	508	534	562	594	625

## PHD DEGREES GRANTED

**NAME**  
 Advisor  
 Vita  
 Dissertation Title

Post Graduation Destination  
 Hometown

**DR. JOSEPH ANDERSON** Assistant Professor of Computer Science at Salisbury University  
 Dr. Anastasios Sidiropoulos Columbus, Ohio, USA  
 B.S., Saint Vincent College; M.S., The Ohio State University  
*Geometric Methods for Robust Data Analysis in High Dimension*

**DR. ANYS BACHA** Software Engineer at Hewlett Packard, Sacramento, California  
 Dr. Mircea-Radu Teodorescu Dublin, Ohio  
 B.S.; M.S. Western Michigan University; M.S., The Ohio State University  
*Harnessing on-chip error correction for energy efficiency and security*

**DR. AYAN BISWAS** Post Doc Researcher, Los Alamos National Labs  
 Dr. Han-Wei Shen Mankundu India  
 B. S. ptr.Sci.Eng., Jadavpur University; M.S., The Ohio State University  
*Uncertainty and Error Analysis in the Visualization of Multidimensional and Ensemble Data Sets*

**DR. SWARNENDU BISWAS** Post-Doc Fellow, Institute of Computational Engineering & Sciences, The University of Texas at Austin  
 Dr. Michael Bond Durgapur, India  
 B. Engr., National Institutes of Technology India; M.S., Indian National Institute of Technology Kharagpur; M.S. The Ohio State University  
*Practical support for strong serializability-based memory consistency*

**DR. DI CAO** Graduate Teaching Assistant, The Ohio State University  
 Dr. Richard Parent Columbus, Ohio  
 B.S., Fudan University; M.S., The Ohio State University  
*Physically Based Simulation of Various Fabrics with Multi-Level Modeling*

**DR. MAN CAO** Software Engineer at Google, Sunnyvale California  
 Dr. Michael Bond Jinan, China  
 Bachelor's, Zhejiang University; M.S., The Ohio State University  
*Efficient, Practical Dynamic Program Analyses for Concurrency Correctness*

**DR. CHUN-MING CHEN** Software Engineer Google  
 Dr. Han-Wei Shen Taichung City, Taiwan  
 B.S., National Chiao Tung University; M.S., University of Southern California  
*Data summarization for large time-varying flow visualization and analysis*

**DR. JITONG CHEN** Research Scientist at Baidu Silicon Valley AI Lab  
 Dr. Deliang Wang Xianju, Zhejiang, China  
 Bachelor's, Northeastern University; M.S., The Ohio State University  
*On Generalization of Supervised Speech Separation*

**DR. HAO DING** Sr. Statistical Analyst, DGTC, Bentonville, AR  
 Dr. Raghu Machiraju Columbus, OH  
 Bachelor's, Tongji University  
*Visualization and Integrative analysis of cancer multiomics data*

**DR. DUSTIN HOFFMAN** Odenton, MD  
 Dr. Bruce Weide Columbus, Ohio  
 B.S., M.S., The Ohio State University  
*Techniques for the specification and verification of enterprise applications*

**DR. DACHUAN HUANG**

Dr. Feng Qin

B.Eng., M.S., Huazhong University of Science and Technology; M.S., The Ohio State University

*Improving Performance in Large-Scale Distributed Systems by Exploiting Data Placement*

Software Engineer at Snap Inc., Columbus, Ohio  
Columbus, Ohio

**DR. NUSRAT ISLAM**

Dr. DK Panda

B.S., Bangladesh University of Engineering and Technology; M.S. The Ohio State University

*High Performance File System and I/O Middleware Design for Big Data on HPC Clusters*

Software Engineer at Intel Corporation, Columbus, Ohio  
Dhaka, Bangladesh

**DR. KE JIANG**

Dr. Mikhail Belkin

B.S., Wuhan University; M.S., The Ohio State University

*Small-Variance Asymptotics for Bayesian Models*

Data Scientist, Microsoft, WA  
Fuyang, China

**DR. GANG LI**

Dr. Dong Xuan

B.Eng., Master's, Tongji University

*A Holistic Study on Electronic and Visual Signal Integration for Efficient Surveillance*

Post Doc Researcher with The Ohio State University  
Columbus, OH

**DR. QIHANG LI**

Dr. Raghu Machiraju

B.S., Hangzhou; M.S., Morehead State University; M.S., The Ohio State University

*Visual Analytics of Patterns of Gene Expression in the Developing Mammal Brains*

Conversant Media  
Lexington, KY

**DR. JIAQI LIU**

Dr. Gagan Agrawal

B.S., Beihang University; M.S., The Ohio State University

*Handling Soft and Hard Errors for Scientific Applications*

Facebook  
Columbus, OH

**DR. XIAOTONG LIU**

Dr. Han-Wei Shen

B.S., Shanghai Jiao Tong University; M.S., The Ohio State University

*Visual Exploration and Comparative Analytics of Multidimensional Data Sets*

Research Staff, IBM Research - Almaden  
Yantai, China

**DR. KEWEI LU**

Dr. Han-Wei Shen

B.Eng., Wuhan University of Technology; M.S., The Ohio State University

*Distribution-based Exploration and Visualization of Large-Scale Vector and Multivariate Fields*

Software Engineer at GoDaddy, San Francisco, California  
Luoyang, China

**DR. XIANG PAN**

Dr. Mircea-Radu Teodorescu

Bachelor's, Beijing University of Posts and Telecommunications; Hebei University of Technology; M.S., The Ohio State University

*Designing Future Low-Power and Secure Processors with Non-Volatile Memory*

Senior Engineer, Qualcomm Technologies, Inc., Austin, TX  
Wuhan, China

**DR. MD. WAI UR RAHMAN**

Dr. DK Panda

B.S., Bangladesh University of Engineering and Technology; M.S., The Ohio State University

*Designing and Modeling High-Performance Mapreduce and DAG Execution Framework on Modern HPC Systems*  
*Integral Equations in Machine Learning Problems*

HPC Software Engineer at Intel Corporation, Austin, TX  
Hangzhou, China

**DR. SAMYAM RAJBHANDARI**

Dr. P. Sadayappan

B.A., Williams College; M.S. The Ohio State University

*Locality Optimizations for Regular and Irregular Applications*

Sr. Research Software Development Eng at Microsoft, Columbus, OH  
Lalitpur, Nepal



**DR. ARITRA SENGUPTA**

Dr. Michael Bond

Bachelor's, Vellor Institute of Technology; M.S., The Ohio State University

*Legato: End-to-End Bounded Region Serializability Using Commodity Hardware Transactional Memory*

Samsung Research America  
Kolkata, India

**DR. YINXUAN SHI**

Dr. Roger Crawfis

B.S., Univeristy of Electronic Science and Technology of China

*Procedural Content Generation for Computer Games*

Game Technology Engineer, Apple  
Taicang, Suzhou, China

**DR. CHAITANYA SHIVADE**

Dr. Eric Fosler-Lussier

B.Engr., University of Pune; M.S., The Ohio State University

*How sick are you? Methods for Extracting Textual Evidence to Expedite Clinical Trial Screening*

Research Staff Member at IBM, San Francisco, California  
Pune, India

**DR. XIN TONG**

Dr. Han-Wei Shen

B.Engr., Tongi University; M.S., The Ohio State University

*Interactive Visual Clutter Management in Scientific Visualization*

Software Engineer Member at Nokia Technologies, Columbus, OH  
Columbus, OH

**DR. AKSHAY VENKATESH**

Dr. DK Panda

B.Tech., National Institute of Technology India

*High-Performance Heterogeneity/Energy-Aware Communication for Multi-Petaflop HPC Systems*

Software Engineer at NVIDIA, Santa Clara, CA  
Bangalore, India

**DR. XIAOFENG WU**

Dr. Huamin Wang

B.Engr., Harbin Institute of Technology; M.S., The Ohio State University

*Reduced Deformable Body Simulation with Richer Dynamics*

Software Engineer, Houzz  
Quanzhou, Fujian, China

**DR. FAN YANG**

Dr. Dong Xuan

Columbus, OH

**DR. INGY YOUSSEF**

Dr. Anish Arora

Bachelor's, M.S., Ain Shams University; M.S., The Ohio State Univeristy

*Trust via Common Languages*

Post Doc Researcher, The Ohio State University  
Cairo, Egypt

**DR. YANG ZHANG**

Dr. Srinivasan Parthasarathy

B.S., Zhejiang University; M.S., The Ohio State University

*Visually Analyzing Large Scale Graphs*

Google Inc.; Columbus, OH USA  
Taizhou, Jiangsu, China

**DR. YUAN YUAN**

Dr. Xiaodong Zhang

Bachelor's, Huazhong University of Science and Technology; Master's University of Chinese Academy of Sciences; M.S., The Ohio State University

*Advanced Concurrency Control Algorithm Design and GPU System Support for High Performance In-Memory Data Management*

Google, Inc  
Columbus, OH

**DR. MINJIA ZHANG**

Dr. Michael Bond

B.Engr., Master's, Huazhong University of Science and Technology; M.S., The Ohio State University

*Efficient Runtime Support for Reliable and Scalable Parallelism*

Senior Research Software Development Engineer at Microsoft, Redmond WA  
Columbus, OH

## MASTERS GRADUATES

Name  
Advisor  
Home  
Vita

### **Bhavya Arora**

DK Panda  
Dehradun, Uttarakhand, India  
B.Tech., Uttarakhand Technical Institute

### **Albert Mathews Augustine**

DK Panda  
Mumbai, India  
B. Engr., University of Mumbai

### **Wenlei Bao**

P. Sadayaoan  
Shijiazhuang, China  
Bachelor's, M.S. Harbin Institute of  
Technology; M.S. The Ohio State University

### **Anmol Bhatia**

Anish Arora  
Nilokheri, India  
B.Tech., National Institute of Technology, India

### **Fang Cao**

Spyridon Blanas  
Beijing, China  
B.Engr., Beijing Institute of Technology

### **Man Cao**

Michael Bond  
Jinan, China  
Bachelor's, Zhejiang University

### **Keerthi Chadalavada**

Michael Bond  
Vijayawada, Andhra Pradesh, India  
B. Engr., Birla Institute of Technology and  
Science

### **Ankur Chaudhry**

P. Sadayappan  
Moradabad, India  
B. Tech., SASTRA University

### **Linhu Chen**

Han-Wei Shen  
Columbus, Ohio  
B.S., Shanghai Jiao Tong University; Master's,  
Fundan University

### **Young Suk Cho**

Eric Fosler-Lussier  
Seoul, Korea  
B.S., Handong Global University; M.S., Georgia  
Institute of Technology

### **Bratati Das**

Ten-Hwang Lai  
Kolkata, India

### **Meghan Day**

Eric Fosler-Lussier  
Columbus, OH  
B. A., The Ohio State University

### **Yashas Devaraju**

Arnab Nandi  
Bangalore, India  
B.Engr., M.S., Birla Institute of Technology and  
Science

### **Soumya Dutta**

Han-Wei Shen  
Kolkata, India  
Bachelor's. Maulana Abil Kala, Azad University  
of Technology

### **Roe Edenstein**

Gagan Agrawal  
Columbus, Ohio  
B.S., The Open University of Israel

### **Esteban Escobar Alfaro**

Deliang Wang  
Ban Chang, China  
B.S. Cptr.Sci.Eng., The Ohio State University

### **Soren Alok Raj Goyal**

Chunyo Peng  
New Belhi, India  
M.S., Indian Institute of Technology Bombay

### **Chaoqun Guo**

Alan Ritter  
Zibo, China  
B.S., China University of Mining and  
Technology

### **Saurabh Gupta**

Han-Wei Shen  
Jaipur, India  
B.Tech., Vellore Institute of Technology

### **Songyuan Hai**

Ness Shroff  
Zhengzhou, China  
B.S. Cptr.Sci.Eng., Central South University

**Senyang Hu**

Anastasios Sidiropoulos  
Columbus, OH  
Bachelor's, Northeastern University

**Nusrat Islam**

DK Panda  
Dhaka, Bangladesh  
B.S., Bangladesh University of Engineering and Technology

**Gaganjit Jhally**

P. Sadayappan  
LSingapore, Singapore  
B. Engr., Nanyang Technological Univeristy, Singapore

**Lilong Jiang**

Arnab Nandi  
Laizhou, China  
Bachelor's, Northeastern University

**Jian Jin**

Prasun Sinha  
Shanghai, China  
Bachelor's, Shanghai Jiao Tong University

**Minchael Johnson**

Srinivasan Parthasarathy  
Columbus, Ohio  
B.S., Brigham Young University

**Chaitanya Krishna Kande**

Christopher Stewart  
Hyderabad, India  
B. Tech., Vellore Institute of Technology

**Jhansi Lakshmi Kolla**

Neelam Soundarajan  
Nellore, Andhra Pradesh, India  
B.Tech., National Institute of Technology Calicut

**Ashish Gupta Konda**

Kannan Srinivasan  
Bangalore, India  
B.Engr., Visvesvaraya Technological University

**Lakshmikanth Krishnan Kaushik**

Arnab Nandi  
Bangalore, India  
B.Engr., Visvesvaraya Technological University

**Kunal Kulkarni**

DK Panda  
Bangalore, India  
B.Engr., Visvesvaraya Technological University

**Sangeeta Kumari**

Anish Arora  
Jamshedpur, India  
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**Rakshith Kunchum**

P. Sadayappan  
Bangalore, India  
B.Tech., Indian Institute of Technology Roorkee

**Jiyuan Li**

Deliang Wang  
Beijing, China  
Bachelor's Fudan University

**Shuang Li**

Huamin Wang  
Wenzhou, China  
Bachelor's, Xidian University

**Siyuan Li**

Yang Wang  
Hengshui, China  
B.S., Wuhan University

**Yanjie Li**

Yusu Wang  
Zhengzhou, China  
B.S.Cptr.Sci.Eng., The Ohio State University

**Xia Li**

Yusu Wang  
Beijing, China  
B.S., China Agricultural University

**Xiang Li**

Gagan Agrawal  
Upper Arlington, Ohio  
Bachelor's, M.S., Tsinghua University; M.S., Ph.D., The Ohio State University

**Zhouran Li**

Xiaodong Zhang  
Jinan, China  
B.S.Cptr.Sci.Eng., Beijing Institute of Technology

**Nan Liang**

Dong Xuan  
Shiyang, China  
Bachelor's, Wuhan Univeristy

**Jiongqian Liang**

Srinivasan Parthasarthy  
Columbus, Ohio  
B.Engr., Beihang Univeristy

**Xiaojing Lin**

Xiaodong Zhang  
Shanghai, China  
B.Engr., Tongji University

**Daniel Thomas Meehan III**

Gagan Agrawal  
Westlake, Ohio  
B.S.Cptr.Sci.Eng., The Ohio State University

**Siva Meenakshi Renganathan**

Christopher Stewart  
Chennai, India  
B. Engr., Anna University

**Rajaditya Mukherjee**

Huamin Wang  
Kolkata, India  
Bachelor's, Jadavpur University

**Abhijit Nayak**

Srinivasan Parthasarathy  
Bhubaneswar, OR  
B.Tech., National Institute of Technology, India

**Agustin Ortiz III**

Rajiv Ramnath  
Columbus, Ohio  
B.S., Bowling Green State University

**Xiang Pan**

Mircea-Radu Teodorescu  
Wuhan, China  
Bachelor's, Beijing University of Posts and Telecommunications

**Yue Qiao**

Anish Arora  
Chuzhou, China  
B.Engr., University of Science and Technology of China

**Shirdhar Ramachandran**

P. Sadayappan  
Chennai, India  
Bachelor's, Birla Institute of Technology and Science

**Rashmi Jayathirtha Rao**

Christopher Stewart  
Bangalore, India  
B.Engr., Viveswaraya Technological University

**Ramya Ravishankar**

Eric Fosler-Lussier  
Chennai, India  
B.Tech., Anna University

**Alfred Rossi III**

Tamal Dey  
Hilliard, Ohio  
B.S., M.S., The Ohio State University

**Anirban Roychowdhury**

Srinivasan Parthasarathy  
Kolkata, India  
Bachelor's, Jadavpur University

**Spencer Rudolph**

Mircea-Radu Teodorescu  
Gate Mills, Ohio  
B.S.Cptr.Sci.Eng., The Ohio State University

**Bobo Shi**

P. Sadayappan  
Jinchang, China  
B.S., Fudan University; M.S., Ph.D., The Ohio State University

**Dayu Shi**

Tamal Dey  
Shenyang, China  
Bachelor's, M.S., Northeastern University

**Saurabh Singh**

P. Sadayappan  
New Delhi, India  
B. Engr., University of Delhi

**Sreyas Srimath Tirumala**

Eric Fosler-Lussier  
New Delhi, India  
B.S., Guru Gobind Singh Indraprastha University

**Xiaowen Sun**

Mircea-Radu Teodorescu  
Dublin, Ohio  
B.S.Cptr.Sci.Eng., The Ohio State University

**Sandesh Swamy**

Alan Ritter  
Bangalore, India  
B. Engr., Viveswaraiyah Technological University

**Arrvind Venugopal**

Eric Fosler-Lussier  
Vellore, India  
B.Tech., Amrita University

**Sanjana Wadhwa**

Han-Wei Shen  
Bhopal, India  
B. Tech., Maulana Azad National Institute of Technology



**Tzu-Hsuan Wei**

Han-Wei Shen  
Columbus, Ohio  
B.S., M.S., National Central University, Taiwan

**Zhenyu Wu**

Han-Wei Shen  
Columbus, Ohio  
B.Engr., Shanghai Jiao Tong University

**Miaojun Yao**

Huamin Wang  
Columbus, Ohio  
Bachelor's, Zhejiang University

**Kevin Yen**

Han-Wei Shen  
Hilliard, Ohio  
B.S., National Central University, Taiwan

**Yuan Yuan**

Xiaodong Zhang  
Columbus, Ohio  
Bachelor's, Huazhong University of Science  
and Technology; Master's Chinese Academy of  
Science

**Zhicheng Yue**

Prasun Sinha  
Guangzhou, China  
B.Engr., South China University of Technology

**Xu Zhang**

Paul Sivilotti  
Baotou, China  
B. Engr., Tongji University

**Younsheng Zhang**

Neelam Soundarajan  
Liaoning, China  
Bachelor's, Beijing Jiaotong University

**Tong Zhao**

Han-Wei Shen  
Beijing, China  
B.Engr., Beijing University of Posts and  
Telecommunications; B.S., Queen Mary  
University of London

**Zicong Zheng**

Christopher Stewart  
Foshan, China  
B. Engr., South China University of Technology

**Zilong Zou**

Mircea-Radu Teodorescu  
Fengxin, China  
B.Engr., Beihang University

## UNDERGRADUATE PROGRAM

The undergraduate program of CSE (BS degrees) in the College of Engineering, and CIS (BA degrees) in the College of Arts and Sciences continue to grow to respond to the increasingly high demand of society and industries. The size of enrollment and the number of BA/BS degrees awarded increase steadily. The undergraduates in CSE and CIS are competitive majors at Ohio State, which require a high GPA qualification.

	AU 2006	AU 2007	AU 2008	AU 2009	AU 2010	AU 2011	AU 2012*	AU 2013	AU 2014	AU 2015	AU 2016
<b>Undergrad Students Enrolled</b>	795	817	877	871	971	1,102	1,287	1,413	1,498	1,617	1,764
	06-07	07-08	08-09	09-10	10-11	11-12	12-13*	13-14	14-15	15-16	16-17
<b>B.A., B.S. Degrees Awarded</b>	140	142	138	127	152	213	229	204	244	292	333

*\*The term/year of the conversion to semesters.*

### THE UNDERGRADUATE ADVISING STAFF

**Dr. Nikki Strader**, Academic Advising Coordinator, has been with the department since 2003. As advising coordinator, she manages the day-to-day operations of the CSE Undergraduate Advising Office, verifies graduation eligibility for all CSE and CIS majors, is the main point of contact for students interested in the CIS and Computational Science minors, and serves as a resource for the CSE faculty as well as for advisors across the University. She is an active member of ACADAOS (Academic Advising Association at Ohio State), for which she was President from 2006 to 2008 and from which she received one of two “Outstanding Advisor” awards in 2007. She is also a musicologist, with a Ph.D. in Music History from Ohio State.

**Leslie Dowler**, Academic Advisor, joined the CSE Advising team in September 2014 after several years as an advisor at OSU Newark. She earned a Master of Education degree in College Student Personnel from Ohio University in 2006. Leslie is the primary advisor for CSE transfer and international students and is the major advisor for BS-CIS students. She is also on the 2015-2016 Executive Committee of ACADAOS in the role of Secretary.

**Chris Wade**, Academic Advisor, joined the CSE Advising team in November 2015 after a year as an advisor in the Department of Mathematics at The Ohio State University. He earned a Master of Education in Secondary Education and a Bachelor of Arts in Mathematics from The Ohio State University.

## 2015 - 2016 BACHELORS GRADUATES

### COLLEGE OF ARTS AND SCIENCES

- ★ **Name, Degree**  
*Honor(s) Earned*  
Home
- ★ **Thomas Antenucci, BS**  
Mason, Ohio, USA
- ★ **Dong Jo Ban, BS**  
Seoul, South Korea
- ★ **Daniele Bellutta, BS**  
*Summa Cum Laude, with Honors in Arts & Sciences*  
La Crescenta, California, USA
- ★ **Jillian Bendt, BS**  
*Magna Cum Laude, with Honors in Arts & Sciences*  
Findlay, Ohio, USA
- ★ **Joshua Brown, BS**  
Upper Arlington, Ohio, USA
- ★ **Max Buck, BS**  
Cleveland, Ohio, USA
- ★ **Mark Caldwell, BS**  
North Canton, Ohio, USA
- ★ **Taylor Case, BS**  
Powell, Ohio, USA
- ★ **Crystal Ceballos, BS**  
Canfield, Ohio, USA
- ★ **Joseph Chagnon, BS**  
*Magna Cum Laude with Honors in Arts & Sciences*  
Columbus, Ohio, USA
- ★ **Nicholas Chegade, BS**  
*Magna Cum Laude with Honors in Arts & Sciences*  
Solon, Ohio, USA
- ★ **Floyd Claprood, BS**  
Dublin, Ohio, USA
- ★ **Daniel Coyle, BA**  
Maumee, Ohio, USA
- ★ **Matthew Cramblett, BS**  
London, Ohio, USA
- ★ **Nicholas Curto, BS**  
*Summa Cum Laude*  
Findlay, Ohio, USA
- ★ **Bowen Dai, BS**  
Hangzhou, China
- ★ **Tyler Degen, BS**  
Williamsville, NY, USA
- ★ **Derrick Dent, BS**  
Cleveland, Ohio, USA
- ★ **Colin Dolan, BS**  
Galloway, Ohio, USA
- ★ **Ian Frankenburg, BA**  
*Cum Laude, with Honors in Arts & Sciences*  
Findlay, Ohio, USA
- ★ **Jessica Gillespie, BS**  
Columbus, Ohio, USA
- ★ **Kyle Gordon, BS**  
West Chester, Ohio, USA
- ★ **Daniel Gratz, BS**  
*Magna Cum Laude*  
Columbus, Ohio, USA
- ★ **Julie Green, BS**  
Liberty Twp, Ohio, USA
- ★ **Wen Gu, BS**  
Shanghai, China
- ★ **Jacob Haynes, BS**  
*Cum Laude*  
Cincinnati, Ohio, USA
- ★ **Xin Huang, BS**  
*Summa Cum Laude,*  
Columbus, Ohio, USA
- ★ **Christina Hummel, BS**  
*Magna Cum Laude*  
Midlothian, Virginia, USA
- ★ **Aaron Jenkins, BS**  
Columbus, Ohio, USA
- ★ **Kyle Justice, BS**  
Grove City, Ohio, USA
- ★ **Joseph Kay, BS**  
Strongsville, Ohio, USA
- ★ **Adam Kimble, BS**  
*Cum Laude*  
Bryan, Ohio, USA
- ★ **Thomas Leung, BS**  
Strongsville, Ohio, USA

- ★ **Jincheng Liu, BS**  
*Summa Cum Laude*  
Columbus, Ohio, USA
- ★ **Sachinda Liyanaarachchi, BS**  
Colombo, Sri Lanka
- ★ **Yun Ma, BS**  
Columbus, Ohio, USA
- ★ **Assen Marinov, BS**  
Reminderville, Ohio, USA
- ★ **Aaron McCanty, BS**  
*Magna Cum Laude with Honors in Arts & Sciences*  
Cincinnati, Ohio, USA
- ★ **Kelly McCleese, BS**  
Columbus, Ohio, USA
- ★ **Ryan Mulac, BS**  
Brecksville, Ohio, USA
- ★ **Mark Naderer, BS**  
Eastlake, Ohio, USA
- ★ **Asanka Nanayakkara, BS**  
Columbus, Ohio, USA
- ★ **Eva Naumoff, BS**  
Columbus, Ohio, USA
- ★ **Benjamin Oberhaus, BS**  
*Cum Laude, with Honors in Arts & Sciences*  
Swanton, Ohio, USA
- ★ **Eric Olson, BS**  
*Magna Cum Laude*  
Belle Center, Ohio, USA
- ★ **Haifan Ou, BS**  
*Cum Laude*  
Dongguan, China
- ★ **Alexander Overfield, BS**  
Cuyahoga Falls, Ohio, USA
- ★ **Sage Peasron, BS**  
Worthington, Ohio, USA
- ★ **Kyle Perkins, BA**  
Mason, Ohio, USA
- ★ **Tyler Prince, BS**  
Marietta, Ohio, USA
- ★ **Christopher Radebaugh, BS**  
Elida, Ohio, USA
- ★ **Sean Robbins, BS**  
*Cum Laude*  
Akron, Ohio, USA

- ★ **Jamie Silva, BS**  
*Summa Cum Laude with Honors in Arts & Sciences*  
Liberty Twp., Ohio, USA
- ★ **Jodi Smith, BS**  
Columbus, Ohio, USA
- ★ **Robert Steele, BS**  
Twinsburg, Ohio, USA
- ★ **Charles Stevenson, BA**  
Washington Court House, Ohio, USA
- ★ **Matthew Weiss, BS**  
Beavercreek, Ohio, USA
- ★ **Adam Wheeler, BA**  
*Summa Cum Laude, with Honors in Arts & Sciences*  
Columbus, Ohio, USA
- ★ **Michael Wilson, BS**  
Columbus, Ohio, USA
- ★ **Denver Woodward, BS**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Alexander Wunderlich, BS**  
*Cum Laude*  
Upper Arlington, Ohio, USA
- ★ **Zilong Xu, BS**  
Beijing, China
- ★ **Zhenfang Yan, BA**  
Wenzhou, China
- ★ **Rubin Zhang, BS**  
*Magna Cum Laude with Honors in Arts & Sciences*  
Columbus, Ohio, USA
- ★ **Shaoguang Zhao, BS**  
Shijiazhuang, China

## COLLEGE OF ENGINEERING

- ★ **Name (All degrees are Bachelors of Science in Computer Science and Engineering)**  
*Honor(s) Earned*  
Home
- ★ **Michael Abbott**  
Dublin, Ohio, USA



- ★ **Cameron Adams**  
Columbus, Ohio, USA
- ★ **Karl Ahlqvist**  
Worthington, Ohio, USA
- ★ **Austin Alexander**  
*Cum Laude*  
Alexandria, Ohio, USA
- ★ **Benjamin Allen**  
West Chester, Ohio, USA
- ★ **Jason Almeida**  
Pleasanton, California, USA
- ★ **Mike Alquist**  
Brecksville, Ohio, USA
- ★ **Mariamawit Alula**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Akhil Anilkumar**  
Lewis Center, Ohio, USA
- ★ **Kellen Anker**  
Robbinsville, New Jersey, USA
- ★ **Jonathan Arnett**  
Cincinnati, Ohio, USA
- ★ **Bryan Arnold**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Saad Asim**  
*Summa Cum Laude*  
Galloway, Ohio, USA
- ★ **Derek Ault**  
Columbus, Ohio, USA
- ★ **Tyler Axt**  
Liberty Township, Ohio, USA
- ★ **James Baker**  
*Cum Laude*  
Woodsfield, Ohio, USA
- ★ **Alexandru Barbur**  
Columbus, Ohio, USA
- ★ **John Barnett**  
Granville, Ohio, USA
- ★ **Dylan Barrow**  
Columbus, Ohio, USA
- ★ **Jennifer Barry**  
*Cum Laude*  
Reynoldsburg, Ohio, USA

- ★ **Matthew Bartholomew**  
*Magna Cum Laude*  
Logan, Ohio, USA
- ★ **Ryan Bates**  
Chillicothe, Ohio, USA
- ★ **Brae Baumgartner**  
*Summa Cum Laude*  
Worthington, Ohio, USA
- ★ **Connor Bayzath**  
Chesterland, Ohio, USA
- ★ **Danielle Beckley**  
Tiffin, Ohio, USA
- ★ **Daniel Bedich**  
Warren, Ohio, USA
- ★ **Sidney Beier**  
Columbus, Ohio, USA
- ★ **Alexandra Beigel**  
*Magna Cum Laude*  
Sidney, Ohio, USA
- ★ **Alexandra Bell**  
Galloway, Ohio, USA
- ★ **Evyatar Ben-Asher**  
*Magna Cum Laude*  
Cupertino, California, USA
- ★ **Abigal Benedict**  
*Cum Laude*  
Canton, Ohio, USA
- ★ **Aaron Benson**  
Groveport, Ohio, USA
- ★ **Michael Berkovich**  
Columbus, Ohio, USA
- ★ **Shantanu Bhardwai**  
Strongsville, Ohio, USA
- ★ **Gregory Bomkamp**  
Cincinnati, Ohio, USA
- ★ **Nathan Borak**  
Allentown, Pennsylvania, USA
- ★ **Kyla Bouldin**  
Santa Fe, New Mexico, USA
- ★ **David Browning**  
Delaware, Ohio, USA
- ★ **John Butts**  
Whitehouse, Ohio, USA

★ **Rory Caputo**  
Willowbrook, Illinois, USA

★ **Matthew Carney**  
Powell, Ohio, USA

★ **Nicholas Carroll**  
Galloway, Ohio, USA

★ **Thomas Centa**  
*Cum Laude*  
Solon, Ohio, USA

★ **Joseph Chandler**  
Gahanna, Ohio, USA

★ **Duc Chau**  
*Cum Laude*  
Cincinnati, Ohio, USA

★ **Jin Heng Cheah**  
Columbus, Ohio, USA

★ **Xinya Chen**  
Beijing, China

★ **Yuze Chen**  
*Cum Laude*  
Hefei, China

★ **Aaron Christie**  
Kirtland, Ohio, USA

★ **Kee Sern Chua**  
*Cum Laude*  
Sungai Buloh, Malaysia

★ **Evan Clark**  
*Cum Laude*  
Cuyahoga Falls, Ohio, USA

★ **Joshua Clark**  
*Summa Cum Laude with Honors in Engineering*  
Troy, Ohio, USA

★ **Christina Clyde**  
*Magna Cum Laude*  
Liberty Township, Ohio, USA

★ **Marielle Edrienne Co**  
*Cume Laude with Honors in Engineering*  
Cincinnati, Ohio, USA

★ **Pavle Coric**  
Columbus, Ohio, USA

★ **John Cramer**  
Zanesville, Ohio, USA

★ **Daniel Cunningham**  
Willowick, Ohio, USA

★ **Thomas Dail**  
Wooster, Ohio, USA

★ **Evan Danish**  
*Magna Cum Laude*  
Gahanna, Ohio, USA

★ **Mychelle Decker**  
New Carlisle, Ohio, USA

★ **Frederick Deiderich**  
*Summa Cum Laude with Honors in Engineering*  
Hilliard, Ohio, USA

★ **Taylor DeJesus**  
Ravenel, South Carolina, USA

★ **Dustin Dieker**  
Galena, Ohio, USA

★ **Joseph Donnelly**  
Cincinnati, Ohio, USA

★ **Leah Duello**  
Hamilton, Ohio, USA

★ **Alexander Edgar**  
Dublin, Ohio, USA

★ **Hani Ewais**  
Mentor, Ohio, USA

★ **Samuel Farren**  
Columbus, Ohio, USA

★ **Dalton Flanagan**  
*Cum Laude with Honors in Engineering*  
Nashport, Ohio, USA

★ **Bryon Foltz**  
Johnstown, Ohio, USA

★ **Reid Fu**  
*Magna Cum Laude with Honors in Engineering*  
Solon, Ohio, USA

★ **Evan Geisler**  
Fairfield, Ohio, USA

★ **Trenton Gibson**  
Columbus, Ohio, USA

★ **Glen Giffey**  
Dublin, Ohio, USA

★ **Margaret Gilbert**  
Bloomfield, Michigan, USA

★ **Zaccary Gioffre**  
West Pointe, Texas, USA

★ **Skylor Gomes**  
Chesterland, Ohio, USA

- ★ **Ziming Gong**  
Nantong, China
- ★ **William Greer**  
*Summa Cum Laude*  
Centerville, Ohio, USA
- ★ **Justin Gregorio**  
Westerville, Ohio, USA
- ★ **Landon Grim**  
*Cum Laude*  
New Bavaria, Ohio, USA
- ★ **Matias Grotewold**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Federick Gu**  
*Cum Laude*  
Gahanna, Ohio, USA
- ★ **Cheng Guo**  
Columbus, Ohio, USA
- ★ **Yashvardhan Gusani**  
Vapi, India
- ★ **Alex Haas**  
*Magna Cum Laude*  
Liberty Township, Ohio, USA
- ★ **Stephen Haffner**  
Cincinnati, Ohio, USA
- ★ **Christopher Hall**  
Midland, Ohio, USA
- ★ **Amber Harriger**  
West Lafayette, Indiana, USA
- ★ **Ken Hayes**  
*Cum Laude*  
Louisville, Kentucky, USA
- ★ **Yubin He**  
*Summa Cum Laude*  
Tianjin, China
- ★ **Kelly Helmreich**  
*Summa Cum Laude with Honors in Engineering*  
Dublin, Ohio, USA
- ★ **Donald Herre**  
Dublin, Ohio, USA
- ★ **William Hess**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Andrew Hill**  
McKinney, Texas, USA
- ★ **Thomas Hofferberth**  
Liberty Township, Ohio, USA
- ★ **Eric Hojnacki**  
Sylvania, Ohio, USA
- ★ **Reece Holl**  
*Magna Cum Laude*  
Chardon, Ohio, USA
- ★ **Seoyeon Hong**  
Columbus, Ohio, USA
- ★ **Diwen Hu**  
Columbus, Ohio, USA
- ★ **Lingkai Hu**  
Cixi, China
- ★ **Alexander Humphries**  
Lewis Center, Ohio, USA
- ★ **Adas Iqbal**  
Rocky River, Ohio, USA
- ★ **Kathryn Jackson**  
*Cum Laude with Honors in Engineering*  
Chesterland, Ohio, USA
- ★ **Michael Johnston**  
Reno, Nevada, USA
- ★ **Tamera Joseph**  
Sandy, Oregon, USA
- ★ **Seung Jun**  
*Cum Laude with Honors in Engineering*  
Westerville, Ohio, USA
- ★ **Pallavi Kalva**  
Hilliard, Ohio, USA
- ★ **Samuel Kampen**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Esko Kautto**  
*Magna Cum Laude*  
Columbus, Ohio, USA
- ★ **Broden Kelly**  
London, Ohio, USA
- ★ **Eun Kim**  
Hudson, Ohio, USA
- ★ **Richard Kochert**  
*Cum Laude with Honors in Engineering*  
Moreland Hills, Ohio, USA
- ★ **Evan Kozliner**  
Columbus, Ohio, USA

- ★ **Nathan Krebs**  
Chardon, Ohio, USA
- ★ **Max Kross**  
Columbus, Ohio, USA
- ★ **Tyler Kucera**  
*Cum Laude*  
Paonesville, Ohio, USA
- ★ **Tyler Lacks**  
Columbus, Ohio, USA
- ★ **Matthew LeDonne**  
*Cum Laude*  
Cuyahoga Falls, Ohio, USA
- ★ **Andrew Lee**  
Painesville, Ohio, USA
- ★ **Hong Yun Lee**  
Choong Book, South Korea
- ★ **Christopher Leight**  
Strongsville, Ohio, USA
- ★ **Nicholas Leight**  
*Magna Cum Laude*  
Strongsville, Ohio, USA
- ★ **Tyler Li**  
*Cum Laude*  
Mason, Ohio, USA
- ★ **Winnie Li**  
Dublin, Ohio, USA
- ★ **Jordan Linville**  
Centerville, Ohio, USA
- ★ **Yang Liu**  
Wuhan, Hubei, China
- ★ **Yuzhen Liu**  
Zibo, China
- ★ **Cameron Lloyd**  
Pickerington, Ohio, USA
- ★ **Cameron Long**  
Dayton, Ohio, USA
- ★ **Jackson Luken**  
*Cum Laude with Honors in Engineering*  
Columbus, Ohio, USA
- ★ **Albert Maah**  
Liberty Township, Ohio, USA
- ★ **Samuel Maddox**  
Columbus, Ohio, USA

- ★ **Dalton Mankin**  
Hilliard, Ohio, USA
- ★ **Jack Manzler**  
Mariemont, Ohio, USA
- ★ **Oliver Mason**  
Chagrin Falls Ohio, USA
- ★ **Logan McCamish**  
Dublin, Ohio, USA
- ★ **Joshua McCord**  
Pataskala, Ohio, USA
- ★ **Cameron McCuen**  
*Cum Laude*  
Powell, Ohio, USA
- ★ **Christopher McManamon**  
Lewis Center, Ohio, USA
- ★ **Andrew McSurley**  
Pickerington, Ohio, USA
- ★ **Kathryn Mendiola**  
Hudson, Ohio, USA
- ★ **Matthew Migdal**  
Bellmore, New York, USA
- ★ **Daniel Miller**  
Cincinnati, Ohio, USA
- ★ **Steven Miller**  
Cincinnati, Ohio, USA
- ★ **Claudia Moeller**  
East Aurora, New York, USA
- ★ **William Montmorency**  
Riverwoods, Illinois, USA
- ★ **Brandon Moore**  
Columbus, Ohio, USA
- ★ **Tyler Moore**  
Powell, Ohio, USA
- ★ **Stephanie Muhammad**  
Columbus, Ohio, USA
- ★ **Chenfeng Nie**  
Columbus, Ohio, USA
- ★ **Joshua Nieman**  
Hamilton, Ohio, USA
- ★ **Ryan Niemocienski**  
*Cum Laude with Honors in Engineering*  
Columbus, Ohio, USA
- ★ **William Osler**  
Maineville, Ohio, USA

- ★ **Robert Otting**  
*Cum Laude*  
Gahanna, Ohio, USA
- ★ **Austin Palmer**  
Leesburg, Ohio, USA
- ★ **Joseph Pappas**  
Avon Lake, Ohio, USA
- ★ **Logan Patino Middaugh**  
*Cum Laude*  
Lancaster, Ohio, USA
- ★ **Frank Patrizio**  
Piqua, Ohio, USA
- ★ **Kevin Payravi**  
Columbus, Ohio, USA
- ★ **Thomas Pendley**  
Galena, Ohio, USA
- ★ **Andrew Petrilla**  
*Magna Cum Laude with Honors in Engineering*  
Wadsworth, Ohio, USA
- ★ **Maxwell Pettit**  
*Magna Cum Laude*  
Powell, Ohio, USA
- ★ **Wesley Pettie**  
*Magna Cum Laude*  
Dublin, Ohio, USA
- ★ **Zachary Peugh**  
*Cum Laude*  
Troy, Ohio, USA
- ★ **Christopher Phillips**  
Broadview Heights, Ohio, USA
- ★ **Cailin Pitt**  
Pataskala, Ohio, USA
- ★ **Derek Plautz**  
*Cum Laude*  
Cranberry Township, Pennsylvania, USA
- ★ **Samuel Ploucha**  
New Richmond, Ohio, USA
- ★ **Brandon Polly**  
Stow, Ohio, USA
- ★ **Kyle Powers**  
*Magna Cum Laude*  
Columbus, Ohio, USA
- ★ **Eric Purvis**  
Troy, Ohio, USA
- ★ **Shengjie Quan**  
*Summa Cum Laude with Honors in Enginnering*  
Shanghai, China
- ★ **Nicholas Re**  
*Cum Laude*  
North Olmsted, Ohio, USA
- ★ **Bobby Reynolds**  
*Cum Laude*  
Johnson City, Tennessee, USA
- ★ **Chen Rong**  
Columbus, Ohio, USA
- ★ **Stephen Ross**  
*Magna Cum Laude*  
Saulsville, West Virgina, USA
- ★ **Oscar Rubio**  
*Magna Cum Laude*  
Columbus, Ohio, USA
- ★ **Nolan Rudolph**  
Pickerington, Ohio, USA
- ★ **Ilifilza Rusli**  
Columbus, Ohio, USA
- ★ **Sina Sabet**  
*Cum Laude*  
Mason, Ohio, USA
- ★ **Jacob Sage**  
Westerville, Ohio, USA
- ★ **Paul Sandels**  
Copley, Ohio, USA
- ★ **Monish Sangtani**  
*Magna Cum Laude*  
Columbus, Ohio, USA
- ★ **Rohit Sathyanarayana**  
*Cum Laude*  
Columbus, Ohio, USA
- ★ **Kenneth Schmitt**  
Fairfax, Ohio, USA
- ★ **Chad Schnipke**  
Ottawa, Ohio, USA
- ★ **Gregory Schoen**  
Plano, Texas, USA
- ★ **Zachary Schroeder**  
*Cum Laude*  
Columbus, Ohio, USA



- ★ **Tyler Schultz**  
Aurora, Ohio, USA
- ★ **Michael Schulz**  
*Summa Cum Laude*  
Winchester, Virginia, USA
- ★ **Jacob Seile**  
Mason, Ohio, USA
- ★ **Samuel Shutt**  
*Cum Laude*  
Lima, Ohio, USA
- ★ **Sayed Siddigui**  
*Cum Laude*  
Dayton, Ohio, USA
- ★ **Ericpreet Singh**  
West Chester, Ohio, USA
- ★ **Sukhjot Singh**  
Grove City, Ohio, USA
- ★ **Bernard Skubak**  
Westerville, Ohio, USA
- ★ **Will Sloan**  
Columbus, Ohio, USA
- ★ **Jacob Smiddy**  
Springfield, Ohio, USA
- ★ **Zane Smith**  
*Cum Laude*  
Norwalk, Ohio, USA
- ★ **Griffin Solimini**  
*Summa Cum Laude with Honors in Engineering*  
Mason, Ohio, USA
- ★ **David Soller**  
Columbus, Ohio, USA
- ★ **Eric Soppi**  
*Cum Laude*  
Uniontown, Ohio, USA
- ★ **Kevin Spiers**  
Columbus, Ohio, USA
- ★ **Benjamin Stammen**  
Marysville, Ohio, USA
- ★ **Livia Stanley**  
*Summa Cum Laude*  
Pickerington, Ohio, USA
- ★ **W. Dustin Stanley**  
Westerville, Ohio, USA
- ★ **Luke Stegman**  
Cincinnati, Ohio, USA
- ★ **Daniel Stelson**  
*Cum Laude*  
Kirtland, Ohio, USA
- ★ **Gweneveir Stevens**  
Columbus, Ohio, USA
- ★ **Joseph Stone**  
Uniontown, Ohio, USA
- ★ **Tyler Stone**  
Delaware, Ohio, USA
- ★ **Simon Stuard**  
Cincinnati, Ohio, USA
- ★ **Connor Swick**  
Plain City, Ohio, USA
- ★ **Caitlin Talbot**  
Wickliffe, Ohio, USA
- ★ **Branden Tenbrink**  
Columbus, Ohio, USA
- ★ **Anthony Tenuta**  
Glen Ellyn, Illinois, USA
- ★ **Parth Thaker**  
Lewis Center, Ohio, USA
- ★ **Alex Thomas**  
*Cum Laude*  
Hannibal, Ohio, USA
- ★ **Damonique Thomas**  
Columbus, Ohio, USA
- ★ **Cyriac Thundathil**  
Columbus, Ohio, USA
- ★ **Cameron Toben**  
Sioux Falls, South Dakota, USA
- ★ **Brendan Todahl**  
*Cum Laude*  
West Chester, Ohio, USA
- ★ **Jacob Turner**  
*Magna Cum Laude*  
Pittsford, New York, USA
- ★ **Adam Tyler**  
Massillon, Ohio, USA
- ★ **Caleb Underwood**  
Grove City, Ohio, USA

- ★ **Daniel Valentini**  
Cincinnati, Ohio, USA
- ★ **William Van Der Laar**  
Helena, Ohio, USA
- ★ **Joseph Van Gundy**  
Grove City, Ohio, USA
- ★ **Tadas Varaneckas**  
Riverside, Illinois, USA
- ★ **William Varcho**  
*Magna Cum Laude*  
Willoughby, Ohio, USA
- ★ **Alexander Vavra**  
*Magna Cum Laude*  
Kent, Ohio, USA
- ★ **Ryan Wachowski**  
Mount Orab, Ohio, USA
- ★ **Carlos Waibl**  
Worthington, Ohio, USA
- ★ **Kacper Wardega**  
*Cum Laude with Honors in Engineering*  
Brecksville, Ohio, USA
- ★ **Scott Weddendorf**  
Columbus, Ohio, USA
- ★ **Xiaochi Weng**  
*Cum Laude*  
Hangzhou, China
- ★ **Xu Weng**  
*Cum Laude with Honors in Engineering*  
Lewis Center, Ohio, USA
- ★ **Kristopher Wenger**  
*Magna Cum Laude*  
Worthington, Ohio, USA
- ★ **Kyle Williams**  
*Cum Laude*  
Winchester, Virginia, USA
- ★ **Logan Wilson**  
*Magna Cum Laude*  
Chillicothe, Ohio, USA
- ★ **Alexander Winchell**  
*Magna Cum Laude with Honors in Engineering*  
Cincinnati, Ohio, USA
- ★ **Thomas Winget**  
Mountain View, California, USA

- ★ **Adam Wolfe**  
Kettering, Ohio, USA
- ★ **Ka-wai Wong**  
Westerville, Ohio, USA
- ★ **Connor Wood**  
*Magna Cum Laude*  
Mansfield, Ohio, USA
- ★ **Alec Workman**  
*Cum Laude*  
Mount Vernon, Ohio, USA
- ★ **Kaye Wroblewski**  
Mansfield, Ohio, USA
- ★ **Jordan Wurth**  
Lima, Ohio, USA
- ★ **Yani Xie**  
*Magna Cum Laude*  
Shenzhen, China
- ★ **Xiakan Xu**  
*Cum Laude*  
Hangzhou, Linping, China
- ★ **Yilang Xuan**  
Columbus, Ohio, USA
- ★ **Xuanxuan Xue**  
Zhengzhou, China
- ★ **Xiaochi Weng**  
*Cum Laude*  
Hangzhou, China
- ★ **Yihan Yang**  
*Summa Cum Laude*  
Taizhou, China
- ★ **Zhichao Yang**  
*Magna Cum Laude*  
Wuhan, Hubei, China
- ★ **Zhiyue Yang**  
*Magna Cum Laude*  
Zhengzhou, China
- ★ **Seth Yoder**  
*Cum Laude*  
Ashland, Ohio, USA
- ★ **Clinton Yoos**  
North Canton, Ohio, USA
- ★ **Garrett Young**  
Flower Mound, Texas, USA

- ★ **Eric Yu**  
*Cum Laude*  
Highland Heights, Ohio, USA
- ★ **Huichen Yuan**  
Columbus, Ohio, USA
- ★ **Lana Yusuf**  
*Cum Laude*  
Pickerington, Ohio, USA
- ★ **Alan Zeigler**  
Powell, Ohio, USA
- ★ **Tyler Zeller**  
*Magna Cum Laude*  
Mt. Vernon, Ohio, USA
- ★ **Te Zhang**  
*Magna Cum Laude*  
Jinan, China
- ★ **Xiangyu Zhang**  
*Magna Cum Laude*  
Nanjing, China
- ★ **Huizhong Zhao**  
Dalian, China
- ★ **Zefang Zhao**  
Beijing, China

# FACULTY, SCIENTISTS & STAFF

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## TENURED & TENURE TRACK FACULTY

### **GAGAN AGRAWAL**

*Full Professor*



B.S., Computer Science & Engineering, Indian Institute of Technology, Kanpur, India, 1991; M.S., Computer Science, University of Maryland, College Park, Maryland, 1994; Ph.D., Computer Science, University of Maryland, College Park, Maryland, 1996

Department Research Area: SYSTEMS

Interests: High Performance Computing and Big Data Issues, Programming Models, Fault-Tolerance, Cloud Computing and Data Mining.

### **ANISH ARORA**

*Full Professor*



B. Tech., Computer Science and Engineering, Indian Institute of Technology, New Delhi, 1986; M.S., Computer Science, University of Texas, Austin, 1988; Ph.D., Computer Science University of Texas, Austin, 1992.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Wireless Sensor Networks; Cyberphysical Systems; Fault-tolerant, Secure And Timely Computing; Distributed Systems and Networks; Component-Based Design; Formal Methods; Concurrency Semantics.

### **MIKHAIL BELKIN**

*Full Professor*



Hon.B.Sc. with High Distinction, Mathematics, University of Toronto, 1995; M.S., Mathematics, University of Chicago, 1997; Ph.D., Mathematics, University of Chicago, 2003.

Department Research Area: ARTIFICIAL INTELLIGENCE

Interests: Machine Learning And Statistical Analysis Of Natural Data; Manifold And Spectral Methods For Machine Learning; Algorithms For Semi-Supervised Learning And Clustering; Understanding The Value Of Unlabeled Data In Pattern Recognition; Theoretical analysis of algorithms, particularly in high dimension; Connections to Human Cognition.

### **SPYROS BLANAS**

*Assistant Professor*



Engineering Diploma (5-year B.Sc.), Electronics & Computer Engineering, Technical University of Crete, Greece, 2006; M.Sc., Computer Science, University of Wisconsin–Madison, 2009; Ph.D. in Computer Science from the University of Wisconsin–Madison, 2013.

Department Research Area: SYSTEMS

Interests: Database Management Systems.

**MICHAEL BOND***Associate Professor*

B.S., Computer Science, University of Illinois at Urbana-Champaign, 2002; M.C.S., Computer Science, University of Illinois at Urbana-Champaign, 2003; Ph.D., Computer Sciences, The University of Texas at Austin, 2008

Department Research Area: SOFTWARE  
ENGINEERING AND PROGRAMMING  
LANGUAGES

Interests: Programming Languages; Software Systems; Runtime Systems; Program Analysis;; Parallelism; Compilers; Security

**BRYAN CHOI***Assistant Professor**Joint Appointment with Mortiz  
College of Law*

B.A., Computer Science, Harvard College, 2003; J.D., Harvard Law School, 2007.

Department Research Area: PRIVACY

Interests: Property, Intellectual Property (Patent, Copyright, Trademark), Internet Law, Privacy, Torts

**ROGER CRAWFIS***Associate Professor*

B.S., Computer Science and Applied Mathematics, Purdue University, 1984; M.S., Computer Science, University of California, Davis, 1989; Ph.D., Computer Science, University of California, Davis, 1995.

Department Research Area: GRAPHICS

Interests: Computer Graphics; Video Game Technology; Serious Games; Scientific Visualization; Medical Imaging; Volume Rendering.

**JAMES W. DAVIS***Full Professor*

B.S., Computer Science, University of Central Florida, 1994; M.S., Media Laboratory, Massachusetts Institute of Technology, 1996; Ph.D., Media Laboratory, Massachusetts Institute of Technology, 2000.

Department Research Area: ARTIFICIAL  
INTELLIGENCE

Interests: Computer Vision; Automatic Visual Surveillance and Monitoring; Human Activity Recognition; Video Understanding; and Human-Computer Interaction.



**TAMAL DEY***Full Professor*

B.E., Electronics, Jadavpur University, 1985; M.Tech., Computer Science, Indian Institute of Science-Bangalore, 1987; Ph.D., Computer Science, Purdue University, 1991.

Department Research Area: THEORY, GRAPHICS

Interests: Computational Geometry; Computational Topology; Geometric Modeling; Meshing; Data Analysis

**ERIC FOSLER-LUSSIER***Full Professor*

B.A., Linguistics, University of Pennsylvania, 1993; B.A.S., Computer and Cognitive Science, University of Pennsylvania; 1993; Ph.D., Computer Science, University of California, Berkeley, 1999

Department Research Area: ARTIFICIAL INTELLIGENCE

Interests: Automatic Speech Recognition; Computational Linguistics; Machine Learning.

**TEN-HWANG (STEVE)  
LAI***Full Professor*

B.S., Mathematics, Fu-Jen University, Taiwan, 1972; M.S., Mathematics, Fordham University, 1976; Ph.D., Computer Science, University of Minnesota, 1982.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Cryptography; Network Security; Parallel and Distributed Computing.

**RAGHU MACHIRAJU***Full Professor*

B.Sc., Electrical Engineering, Delhi University, 1982; M.S., Automation, Indian Institute of Science, Bangalore, 1984; Ph.D., Computer Science, The Ohio State University, 1996.

Department Research Area: GRAPHICS

Interests: Data Visualization; Imaging; Bioinformatics; Computational Biology.

**R. FACUNDO MÉMOLI***Associate Professor*

B.S. Electrical Engineering, Universidad de la Republica, Uruguay, 2000; M.S. Electrical Engineering, Universidad de la Republica, Uruguay, 2001; PhD Electrical and Computer Engineering, University of Minnesota, 2005.

Departmental Research areas: THEORY

Research interests: Metric geometry; shape and data analysis; computational topology.

**ARNAB NANDI***Associate Professor*

Bachelors in Information Science, University of Delhi, India, 2005; M.S., University of Michigan, Ann Arbor, 2007; Ph.D., University of Michigan, Ann Arbor, 2011.

Department Research Area: SYSTEMS

Interests: Database Systems; Large-scale Data Analytics; Next-generation User Interfaces; Text Analysis; Interactive Visualization.

**DK PANDA***Full Professor*

B.S., Electrical Engineering, Indian Institute of Technology, Kanpur, India, 1984; M.S., Electrical and Computing Engineering, Indian Institute of Science, Bangalore, India, 1986; Ph.D., Computer Engineering, University of Southern California, Los Angeles, 1991.

Department Research Area: SYSTEMS

Interests: Parallel Computer Architecture; High Performance Networking; Infiniband; Exascale Computing; Programming Models; GPUs and Accelerators; Big Data; Virtualization; Cloud Computing; High Performance File Systems and Storage.

**SRINIVASAN PARTHASARATHY***Full Professor*

B.E., Electrical Engineering, University of Roorkee, India, 1992; M.S., Electrical Engineering, University of Cincinnati, 1994; M.S., Computer Science, University of Rochester, 1996; Ph.D., Computer Science, University of Rochester, 2000.

Department Research Area: SYSTEMS

Interests: Data Mining; Database Systems; Network Analysis; Bioinformatics; High Performance Computing Systems.

**CHUNYI PENG***Assistant Professor*

B.E., Automation, Tsinghua University, 2002; M.E., Automation, Tsinghua University, 2005; Ph.D., Computer Science, University of California, Los Angeles, 2013.

Department Research Area: NETWORKING & DISTRIBUTED COMPUTING

Interests: Mobile Networks; Wireless Networks, Mobile Systems; Sensing and Wearable Computing; Network Security.

**FENG QIN***Associate Professor*

B.E., University of Science and Technology of China, 1998; M.E., Chinese Academy of Sciences, 2001; Ph.D., the University of Illinois, Urbana-Champaign, 2006.

Department Research Area: SYSTEMS

Interests: Operating Systems; Software Reliability; Security and Distributed Systems; Storage Systems

**ALAN RITTER***Assistant Professor*

B.S./M.S., Computer Science, Western Washington University 2006; Ph.D., Computer Science and Engineering, University of Washington 2013.

Department Research Area: ARTIFICIAL INTELLIGENCE

Interests: Information Extraction; Text Mining; Computational Linguistics; Machine Learning.

**NICOLETA ROMAN***Associate Professor,  
Lima Campus*

B.S., Computer Science, University of Bucharest, Romania, 1996; M.S., Computer Science, University of Bucharest, Romania, 1997; Ph.D., Computer Science and Engineering, The Ohio State University, Columbus, Ohio, 2005.

Department Research Area: ARTIFICIAL INTELLIGENCE

Research interests: Computational Auditory Scene Analysis; Binaural sound localization and separation; Automatic Speech Recognition; Machine Learning.

## **NASKO ROUNTEV**

*Full Professor*



B.S., Computer Science & Engineering, Sofia University, Sofia, Bulgaria, 1995; M.S., Computer Science, Rutgers University, 1999; Ph.D., Computer Science, Rutgers University, 2002.

Department Research Area: SOFTWARE ENGINEERING AND PROGRAMMING LANGUAGES

Interests: Software Engineering; Programming Languages and Compilers; Static and Dynamic Program Analysis; Software for Mobile Devices; Software Understanding and Testing; High-Performance Computing.

## **P. (SADAY) SADAYAPPAN**

*Full Professor*



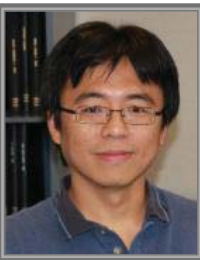
B.S., Electrical Engineering, Indian Institute of Technology, Madras, India, 1977; M.S., Electrical Engineering, State of University of New York, Stony Brook, 1978; Ph.D., Electrical Engineering, State of University of New York, Stony Brook, 1983.

Department Research Area: SYSTEMS

Interests: Compiler/Runtime Systems For High-Performance Computing; Performance Optimization; High-Productivity, High-Performance Scientific Computing.

## **HAN-WEI SHEN**

*Full Professor*



B.S., Computer Science, National Taiwan University, 1988; M.S., Computer Science, State University of New York, Stony Brook, 1992; Ph.D., Computer Science, University of Utah, 1998.

Department Research Area: GRAPHICS

Interests: Computer Graphics; Information Visualization; Parallel Visualization Scientific Visualization; Visual Analytics.

## **NESS B. SHROFF**

*Ohio Eminent Scholar of  
Networking and  
Communications Endowed  
Chair Professor*



B.S., University of Southern California, 1988; M.S.E., University of Pennsylvania, 1990; M.Phil, Columbia University, 1993; Ph.D., Columbia University, 1994.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Wireless Networks; Next Generation Internet; Sensor Networks; Cloud Computing; Network Optimization; Network Design and Dimensioning; Network Security; Information Theoretic Security; Queueing Theory; Dynamic Control; Network Coding; Scaling Laws; Distributed Algorithms; Complexity and Approximability; Game Theory; Pricing

**ANASTASIOS  
SIDIROPOULOS**  
*Assistant Professor*



Professor Diploma, Computer Science, University of Patras, 2002; MS, Computer Science, Massachusetts Institute of Technology, 2005; PH.D., Computer Science, Massachusetts Institute of Technology, 2008.

Department Research Area: THEORY

Interests: Graph Algorithms; Computational Geometry; Metric Embeddings; Approximation Algorithms; Computational Topology.

**PRASUN SINHA**  
*Full Professor*



B. Tech., Computer Science and Engineering, Indian Institute of Technology, Delhi, India, 1995; MS, Computer Science, Michigan State University, 1997; PhD, Computer Science, University of Illinois, Urbana-Champaign, 2001.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Sensor Networking; Ad-hoc Networking; Mobile Computing; Wireless Networking.

**PAUL A.G. SIVILOTTI**  
*Associate Professor*



B.Sc.H., Computing Science, Mathematics & Biochemistry, Queen's University, Ontario, Canada, 1991; M.S., Computer Science, California Institute of Technology, 1993; Ph.D., Computer Science, California Institute of Technology, 1998.

Department Research Area: SOFTWARE ENGINEERING AND PROGRAMMING LANGUAGES

Interests: Distributed Systems; Software Engineering; and Tool-based Support for Testing Component Implementations.

**NEELAM SOUNDARAJAN**  
*Associate Professor*



B.S., Physics, Bombay University, India, 1970; M.S., Physics, Bombay University, India, 1972; Ph.D., Computer Science, Bombay University, India, 1978.

Department Research Area: SOFTWARE ENGINEERING AND PROGRAMMING LANGUAGES

Interests: Software Engineering; Reasoning about Program Behavior; Specification; Verification; Testing; Issues in Engineering Education.



## **KANNAN SRINIVASAN**

*Associate Professor*



B.S., Electronics & Communications Engineering, University of Madras, Chennai, India. 2000; M.S., Electrical & Computer Engineering, Oklahoma State University, 2002; Ph.D., Electrical Engineering, Stanford University, Stanford, CA, USA, 2010.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Wireless Networking; Low Power Wireless Systems; Communication Systems; Smartgrids and Wireless Security.

## **CHRISTOPHER STEWART**

*Associate Professor*



B.S., Computer Science, Morehouse College, 2003; M.S., Computer Science, University of Rochester, 2005; Ph.D., Computer Science, University of Rochester, 2008.

Department Research Area: SYSTEMS

Interests: Sustainable computing; Internet services; Data-intensive services; Distributed Systems; Performance Modeling..

## **HUAN SUN**

*Assistant Professor*



B.S., Electronic Engineering and Information Science, University of Science and Technology of China, 2010; Ph.D., Computer Science, University of California, Santa Barbara, 2015

Department Research Area: DATA MINING

Interests: Data Mining and Machine Learning with emphasis on text mining and understanding, network analysis, and human behavior understanding.

## **KENNETH J. SUPOWIT**

*Associate Professor*



B.A., Linguistics, Cornell University, 1978; Ph.D., Computer Science, University of Illinois, 1981

Department Research Area: THEORY

Interests: Combinational Algorithms

**RADU TEODORESCU***Associate Professor*

Dipl. Eng. in Computer Science, Technical University of Cluj-Napoca, Romania, 2002; M.S., Computer Science, University of Illinois at Urbana-Champaign, 2005; Ph.D., Computer Science, University of Illinois at Urbana-Champaign, 2008.

Department Research Area: SYSTEMS

Interests: Computer Architecture, with a Focus On Designing Energy Efficient and Reliable Microprocessors and Systems.

**DELIANG (LEON) WANG***Full Professor*

B.S., Computer Science, Beijing University, 1983; M.S., Computer Science, Beijing University, 1986; Ph.D., Computer Science, University of Southern California, Los Angeles, 1991.

Department Research Area: ARTIFICIAL INTELLIGENCE

Interests: Machine Perception; Neurodynamics.

**HUAMIN WANG***Associate Professor*

B.Eng., Computer Science and Engineering, Zhejiang University Hangzhou, China, 2002; M.S., Computer Science, Stanford University Stanford, CA, USA, 2004; Ph.D. in Computer Science Georgia Institute of Technology Atlanta, GA, USA, 2009.

Department Research Area: GRAPHICS

Computer Graphics, GPU Programming for High-performance Graphics and General-purpose Computation, Computer Vision, Feature Tracking, Optical Flow, 3D Reconstruction, Finite Element Method, Numerical Integration, Model Reduction, Motion Control and Design, Efficient Data Structures.

**YANG WANG***Assistant Professor*

B.E., Computer Science and Technology, Tsinghua University, 2005; M.E., Computer Science and Technology, Tsinghua University, 2008; Ph.D., Computer Science, The University of Texas at Austin, 2014

Department Research Area: DISTRIBUTED COMPUTING

Interests: Fault Tolerance; Large-scale Storage System; Correctness and Performance Debugging.

## **YUSU WANG**

*Full Professor*



B.S., Computer Science, Tsinghua University (P. R. China), 1998; M.S., Computer Science, Duke University, 2000; Ph.D., Computer Science, Duke University, 2004.

Department Research Area: GRAPHICS

Interests: Computational Geometry; Algorithms; Computational Biology; Computational Topology; Graphics; Modeling; Visualization.

## **REPHAEL WENGER**

*Associate Professor and Associate Chairperson*



B.S.E., Computer Science, Princeton University, 1984; Ph.D., Computer Science, McGill University, 1988.

Department Research Area: GRAPHICS

Interests: Computational Geometry; Computer Visualization; Isosurface Reconstruction; and Image Processing.

## **WEI XU**

*Assistant Professor*



B.S. and M.S., Computer Science, Tsinghua University, 2004/2007; Ph.D. Computer Science, New York University, 2017.

Department Research Area: MACHINE LEARNING, NATURAL LANGUAGE PROCESSING, BIG DATA, SOCIAL MEDIA, DATA SCIENCE

Interests:

## **DONG XUAN**

*Full Professor*



B.S., Electronic Engineering, Shanghai Jiao Tong University, China, 1990; M.S., Electronic Engineering, Shanghai Jiao Tong University, 1993; Ph.D., Computer Engineering, Texas A&M University, 2001.

Department Research Area: NETWORKING and DISTRIBUTED COMPUTING

Interests: Distributed Computing; Computer Networks; Cyber Space Security.

## **XIAODONG ZHANG**

*Chairperson of Computer  
Science & Engineering  
Robert M. Critchfield Professor*



B.S., Electrical Engineering, Beijing University of Technology, 1982;  
M.S., Computer Science, University of Colorado at Boulder, 1985; Ph.D., Computer Science, University of Colorado at Boulder, 1989.

Department Research Area: SYSTEMS, NETWORKING and DISTRIBUTED COMPUTING

Interests: Data Management in Computer; Distributed Systems

## **YINQIAN ZHANG**

*Assistant Professor*



B.Eng., Information Security, Shanghai Jiao Tong University, 2006; M.Eng. Communication and Information Systems, Shanghai Jiao Tong University, 2009; Ph.D., Computer Science, University of North Carolina at Chapel Hill, 2014.

Department Research Area: Networking & Distributed Computing

Interests: Computer System Security; Cloud and Mobile Security; Privacy

## **COURTSEY APPOINTMENTS**

**Ken Huang**, Associate Professor, Dept. of Biomedical Informatics

**Michael Knopp**, Professor and Vice Chair of Research, Dept. of Radiology

**Yoonkyung Lee**, Professor, Dept. of Statistics

**Xiaorui (Ray) Wang**, Associate Professor, Electrical and Computer Engineering

**Cathy (Honghui) Xia**, Associate Professor, Integrated Systems Engineering

**Alper Yilmaz**, Associate Professor, Civil Environmental & Geodetic Science

## **EMERITUS APPOINTMENTS**

### **PROFESSOR EMERITUS**

Balakrishnan Chandrasekaran

Charles A. Csur

Ming-Tsan (Mike) Liu

Sandy Mamrak

Mervin E. Muller

Bruce Weide

Stuart Zweben

### **ASSOCIATE PROFESSOR EMERITUS**

Clinton R. Foulk

Douglas S. Kerr

Timothy Long

William F. Ogden

Rick Parent

Anthony E. Petrarca

### **FACULTY EMERITUS**

James B. Randels

## CLINICAL FACULTY

### **RAJIV RAMNATH**

*Full Professor  
of Practice  
Director, Collaborative for Enterprise Transformation and Innovation (C.E.T.I.)*



B.Tech., Indian Institute of Technology, New Delhi, India, 1981; M.S., Computer & Information Science, The Ohio State University, 1983; Ph.D., Computer & Information Science, The Ohio State University, 1988.

Research Interests: Scientific Computing; Using Data to Understand Adaptive Complex Enterprises; Enterprise Architecture and Engineering; Human-Machine Systems; Workflow and Work-Management Systems Enterprise Software Engineering and Computer Science Education; Wireless Sensor Network and Pervasive Computing Enterprise Applications; e-Government.

### **JEREMY MORRIS**

*Assistant Professor of Practice*



B.S., Mathematics and Computer Science, Bowling Green State University, 1996; M.A., Education, The Ohio State University, 1998; M.S., Computer Science and Engineering, The Ohio State University, 2007; Ph.D., Computer Science and Engineering, The Ohio State University, 2010.

Research Interests: Artificial Intelligence, particularly as it applies to Automatic Speech Recognition (ASR) and Natural Language Processing (NLP).

## POST-DOCTORATE RESEARCHERS

Behrooz Omidvar-Tehrani  
Aravind Sukumaran Rajam  
Arjun Suresh

## RESEARCH STAFF

Mark Arnold - Research Specialist  
Assoiate  
Xiaoyi Lu - Research Scientist  
Agustin Ortiz III-Research Assistant  
Jonathan L. Perkins - Systems  
Administrator  
Andrew Plummer-Research Associate  
Jeffrey Smith-Research Specialist  
Kaitlyn Spehr-Research Assistant



## RESEARCH SCIENTISTS

### **VIRGINIA A. FOLCIK-NIVAR**

*Research Scientist*



B.S., Biology, Cleveland State University, 1988; Ph.D., Regulatory Biology, Cleveland State University, 1993; B.S., Computer Science and Engineering, The Ohio State University, 2005.

Interests: Using artificial intelligence and other computational data-analysis methods to solve problems in the areas of health care and business; searching for idiopathic disease mechanisms using combined agent-based modeling, literature searches; human pathology laboratory investigation..

### **KHALED HAMIDOUCHE**

*Research Scientist*



Master's Degree in Computerr Science, High Performance Computing, Paris-Sud Univeristy; Research Doctorare, HPC Computing, Universite Paris Sud.

Research Interests: Programming models for hybrid and heterogeneous systems, MVAPICH2

### **JIHUN HAMM**

*Research Scientist*



B.S. Electrical Engineering, Seoul National University, 1998; M.S. Biomedical Engineering, Seoul National University, 2002; Ph.D. Electrical Engineering, University of Pennsylvania, 2008.

Research Interests: Machine Learning; Computer Vision; Medical Imaging.

### **RUBAO LI**

*Research Scientist*



B.S., Mechatronics, Jingdezhen Ceramic Institute, 2000; M.S., Computer Science, Beijing University of Technology, 2003; Ph.D., Computer Science, Chinese Academy of Sciences, 2008.

Research Interests: Distributed and Parallel Computing Systems; Database Systems and Data Integration Systems; Computer Architecture; Storage Systems.

### **XIAOYI LU**

*Research Scientist*



B.S. Electical, Electronics and Communications Engineering, Huazhong University of Science and Technology, 2006. Ph.D. Computer Science, Institute of Computing Technology, Chinese Academy of Sciences, 2012.

Research Interests: Parallel Computing (MPI/PGAS) and Cloud Computing (Big Data, Hadoop Ecosystem).

### **HARI SUBRAMONI**

*Research Scientist*



B. Tech, Computer Science, University of Kerala, 2004. M.S., Computer Science and Engineering, The Ohio State University, 2009. Ph.D., Computer Science and Engineering, The Ohio State University, 2013.

Research Interests: High performance computer networks, Netowrk based computing, Internet router and switch architectures.

## LECTURERS



**GOJKO  
BABIC**

*Senior  
Lecturer*

B.S., Electric Engineering, University of Sarajevo, 1972; M.S., Computer Science, Florida Institute of Technology, 1975; Ph.D., Computer Science, The Ohio State University, 1978.



**BETTINA  
BAIR**

*Senior  
Lecturer*

B.S., Business Administration, University of Phoenix, 1987; M.B.A., University of Denver, 1992.



**MATTHEW  
BOGGUS**

*Senior  
Lecturer*

B.A., Computer Science and Mathematics, Hiram College, 2006; Ph.D., Computer Science and Engineering, The Ohio State University, 2012.



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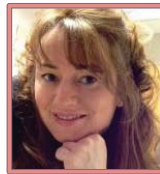
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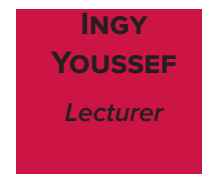
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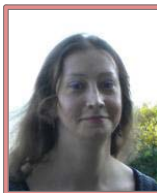
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# STAFF

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## ADMINISTRATIVE STAFF

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Tamèra Cramer - Reception

Don Havard - Fiscal Officer

Z. Lynn Lyons - Graduate Admissions and Graduate Studies Coordinator

Wendy Michel - Fiscal Associate

Tiffany McGough - PR Coordinator and Chairperson Assistant

Kathryn Reeves - Academic Program Administrator

Christa Yandrich - Grants Administrator

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Dave Kneisly - Computer Operations/ Network Manager

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Aaron Jenkins - Systems Manager

Robert Joseph - Systems Developer / Engineer

Todd Lucal - Systems Manager

Shaun Rowland - Senior Systems Developer / Engineer

Ted Welch - Systems Manager





*Dreese's Garden of Constants*



