Computer Science & Engineering

Phone: 314-935-6160  
Website: https://cse.wustl.edu/academics/undergraduate/index.html

Faculty

Chair

Roch Guérin (https://engineering.wustl.edu/faculty/Roch-Guerin.html)  
Harold B. and Adelaide G. Welge Professor of Computer Science  
PhD, California Institute of Technology  
Computer networks and communication systems

Professors

Sanjoy Baruah (https://engineering.wustl.edu/faculty/Sanjoy-Baruah.html)  
PhD, University of Texas at Austin  
Real-time and safety-critical system design, cyber-physical systems, scheduling theory, resource allocation and sharing in distributed computing environments

Aaron Bobick (https://engineering.wustl.edu/faculty/Aaron-Bobick.html)  
James M. McKelvey Professor and Dean  
PhD, Massachusetts Institute of Technology  
Computer vision, graphics, human-robot collaboration

Michael R. Brent (https://engineering.wustl.edu/faculty/Michael-Brent.html)  
Henry Edwin Sever Professor of Engineering  
PhD, Massachusetts Institute of Technology  
Systems biology, computational and experimental genomics, mathematical modeling, algorithms for computational biology, bioinformatics

PhD, Washington University  
Computational biology, genomics, algorithms for comparing and annotating large biosequences

Roger D. Chamberlain (https://engineering.wustl.edu/faculty/Roger-Chamberlain.html)  
DSc, Washington University  
Computer engineering, parallel computation, computer architecture, multiprocessor systems

Yixin Chen (https://engineering.wustl.edu/faculty/Yixin-Chen.html)  
PhD, University of Illinois at Urbana-Champaign  
Mathematical optimization, artificial intelligence, planning and scheduling, data mining, learning data warehousing, operations research, data security

Patrick Crowley (https://engineering.wustl.edu/faculty/Patrick-Crowley.html)  
PhD, University of Washington  
Computer and network systems, network security

Ron K. Cytron (https://engineering.wustl.edu/faculty/Ron-Cytron.html)  
PhD, University of Illinois at Urbana-Champaign  
Programming languages, middleware, real-time systems

Christopher D. Gill (https://engineering.wustl.edu/faculty/Christopher-Gill.html)  
DSc, Washington University  
Parallel and distributed real-time embedded systems, cyber-physical systems, concurrency platforms and middleware, formal models and analysis of concurrency and timing

Barbara J. & Jerome R. Cox Jr. Professor of Computer Science  
PhD, Harvard University  
Network security, blockchains, medical systems security, industrial systems security, wireless networks, unmanned aircraft systems, internet of things, telecommunications networks, traffic management

Tao Ju (https://engineering.wustl.edu/faculty/Tao-Ju.html)  
PhD, Rice University  
Computer graphics, visualization, mesh processing, medical imaging and modeling

Chenyang Lu (https://engineering.wustl.edu/faculty/Chenyang-Lu.html)  
Fullgraf Professor in the Department of Computer Science & Engineering  
PhD, University of Virginia  
Internet of things, real-time, embedded, and cyber-physical systems, cloud and edge computing, wireless sensor networks

Neal Patwari (https://engineering.wustl.edu/faculty/Neal-Patwari.html)  
PhD, University of Michigan  
Application of statistical signal processing to wireless networks, and radio frequency signals

Weixiong Zhang  
PhD, University of California, Los Angeles  
Computational biology, genomics, machine learning and data mining, and combinatorial optimization
**Associate Professors**

Kunal Agrawal (https://engineering.wustl.edu/faculty/Kunal-Agrawal.html)
PhD, Massachusetts Institute of Technology
Parallel computing, cyber-physical systems and sensing, theoretical computer science

Roman Garnett (https://engineering.wustl.edu/faculty/Roman-Garnett.html)
PhD, University of Oxford
Active learning (especially with atypical objectives), Bayesian optimization, and Bayesian nonparametric analysis

Brendan Juba (https://engineering.wustl.edu/faculty/Brendan-Juba.html)
PhD, Massachusetts Institute of Technology
Theoretical approaches to artificial intelligence founded on computational complexity theory and theoretical computer science more broadly construed

Caitlin Kelleher (https://engineering.wustl.edu/faculty/Caitlin-Kelleher.html)
Hugo F. & Ina Champ Urbauer Career Development Associate Professor
PhD, Carnegie Mellon University
Human-computer interaction, programming environments, and learning environments

I-Ting Angelina Lee
PhD, Massachusetts Institute of Technology
Designing linguistics for parallel programming, developing runtime system support for multi-threaded software, and building novel mechanisms in operating systems and hardware to efficiently support parallel abstractions

PhD, University of Missouri-Rolla
Ultrasonic imaging, medical instrumentation, computer engineering

Yevgeniy Vorobeychik (https://engineering.wustl.edu/faculty/Yevgeniy-Vorobeychik.html)
PhD, University of Michigan
Artificial intelligence, machine learning, computational economics, security and privacy, multi-agent systems

William Yeoh (https://engineering.wustl.edu/faculty/William-Yeoh.html)
PhD, University of Southern California
Artificial intelligence, multi-agent systems, distributed constraint optimization, planning and scheduling

**Assistant Professors**

Ayan Chakrabarti (https://engineering.wustl.edu/faculty/Ayan-Chakrabarti.html)
PhD, Harvard University
Computer vision computational photography, machine learning

Chien-Ju Ho (https://engineering.wustl.edu/faculty/Chien-Ju-Ho.html)
PhD, University of California, Los Angeles
Design and analysis of human-in-the-loop systems, with techniques from machine learning, algorithmic economics, and online behavioral social science

PhD, École Polytechnique Fédérale de Lausanne, Switzerland
Computational imaging, image and signal processing, machine learning and optimization

Alvitta Ottley (https://engineering.wustl.edu/faculty/Alvitta-Ottley.html)
PhD, Tufts University
Designing personalized and adaptive visualization systems, including information visualization, human-computer interaction, visual analytics, individual differences, personality, user modeling and adaptive interfaces

Netanel Raviv (https://engineering.wustl.edu/faculty/Netanel-Raviv.html)
PhD, Technion, Haifa, Israel
Mathematical tools for computation, privacy and machine learning

Ning Zhang (https://engineering.wustl.edu/faculty/Ning-Zhang.html)
PhD, Virginia Polytechnic Institute and State University
System security, software security

**Teaching Professor**

Bill Siever
PhD, Missouri University of Science and Technology
Computer architecture, organization, and embedded systems

**Professor of the Practice**

Dennis Cosgrove (https://engineering.wustl.edu/faculty/Dennis-Cosgrove.html)
BS, University of Virginia
Programming environments and parallel programming
**Senior Lecturers**

Steve Cole  
PhD, Washington University in St. Louis  
Parallel computing, accelerating streaming applications on GPUs

Marion Neumann ([https://engineering.wustl.edu/faculty/Marion-Neumann.html](https://engineering.wustl.edu/faculty/Marion-Neumann.html))  
PhD, University of Bonn, Germany  
Machine learning with graphs; solving problems in agriculture and robotics

PhD, Washington University  
Computer architecture and memory management

Douglas Shook ([https://engineering.wustl.edu/faculty/Doug-Shook.html](https://engineering.wustl.edu/faculty/Doug-Shook.html))  
MS, Washington University  
Imaging sensor design, compiler design and optimization

**Lecturers**

Hila Ben Abraham  
PhD, Washington University in St. Louis  
Parallel computing, accelerating streaming applications on GPUs, computer and network security, and malware analysis

Brian Garnett ([https://engineering.wustl.edu/faculty/Brian-Garnett.html](https://engineering.wustl.edu/faculty/Brian-Garnett.html))  
PhD, Rutgers University  
Discrete mathematics and probability, generally motivated by theoretical computer science

James Orr ([https://engineering.wustl.edu/faculty/James-Orr.html](https://engineering.wustl.edu/faculty/James-Orr.html))  
PhD, Washington University  
Real-time systems theory and implementation, cyber-physical systems, and operating systems

**Senior Professor**

Jonathan S. Turner  
PhD, Northwestern University  
Design and analysis of internet routers and switching systems, networking and communications, algorithms

**Senior Faculty Emeritus**

Jerome R. Cox Jr.  
ScD, Massachusetts Institute of Technology  
Computer system design, computer networking, biomedical computing

**Professors Emeriti**

Takayuki D. Kimura  
PhD, University of Pennsylvania  
Communication and computation, visual programming