You have a dream for your future, and the programs at the School of Informatics, Computing, and Engineering will help make your dream a reality. We’ll give you the tools needed to push you further than you ever imagined.

The ideas and inspiration for the next world-changing advances and life-saving solutions are all around us. Our students and faculty are breaking new ground every day. From studying big data to track environmental trends to using electronic medical records that will develop better health outcomes to creating applications to protect sensitive information, the School of Informatics, Computing, and Engineering sees what tomorrow can be—and we shape it every day.
WITH THE SCHOOL OF INFORMATICS, COMPUTING, AND ENGINEERING

The School’s unique combination of programs—including computer science, data science, informatics, information science, intelligent systems engineering, and library science—makes our school one of the largest, broadest, and most accomplished of its kind.

Our innovative programs share one important goal: developing solutions to make the world a better place through the use of information and technology. From that singular goal branches highly interdisciplinary fields of study complete with the flexibility that allows our students to craft their degree with a variety of specializations, tracks, dual degrees, and certifications.

SICE also brings together a network of talented peers, faculty, and staff who will want to mentor, support, and guide you as you pursue your dreams. It’s a community that will never let you down.

DISCOVER TOMORROW
A cutting-edge education requires state-of-the-art facilities, and the School of Informatics, Computing, and Engineering provides the environment, infrastructure, and computing resources needed to prepare our students to be the technology leaders of the future.

The 72,000-square-foot Informatics East and Informatics West complex features classrooms and labs—including our Informatics Learn Lab, which is filled with the latest in classroom technology to aid interactive and collaborative learning.

Taking SICE into the future is the new 124,000-square-foot Luddy Hall, a state-of-the-art facility that will be a teaching and research hub for the School. It will promote collaboration, community, sociability, entrepreneurship, and innovation. The $42 million facility will include seven classrooms, eight labs, a 160-seat auditorium, the 3,500-square-foot Shoemaker Center for Entrepreneurship, and a 1,600-square-foot community center to welcome all.

IU’s computing resources are among the best in the country. Big Red II ranks among the world’s fastest research supercomputers, and the Karst supercomputer, a high-throughput computing cluster, is designed to deliver large amounts of processing capacity over long periods of time. The Carbonate supercomputer, which goes online in 2018, fully supports high-performance, data-intensive computing and can handle computing tasks for researchers using genome assembly software, large-scale phylogenetic software, or other genome analysis applications that require large amounts of computer memory.

We also offer high-quality data storage services for fast access or large data sets, tools for analytics and big data research, and more.
INNOVATIVE RESEARCH
At the School, you can expect to work alongside world-renowned faculty who are engaged in cutting-edge research.

COMPUTER SCIENCE
Algorithms for Big Data • Artificial Intelligence • Bioinformatics • Cognitive Science • Data Mining • Database Theory and Systems • Foundational Theory • High Performance Computing • Parallel and Distributed Computing • Intelligent Systems • Programming Languages • Security • Unconventional Computing • Hardware • Music Informatics • Machine Learning • Data Science • Speech Processing • Computer Networks

INFORMATICS
Archaeoinformatics • Artificial Intelligence • Cheminformatics • Complex Networks and Systems • Data Science • Proactive Health Informatics • Human Computer Interaction Design • Interactive Intelligent Systems • Music Informatics • Security Informatics • Computing, Culture, and Society • Visualization • Computer Graphics • Computer Vision

INFORMATION AND LIBRARY SCIENCE
Computer Mediated Communications • Scholarly Communication • Digital Humanities • Social Informatics • Complex Systems • Data Mining • Web Science • Natural Language Processing • Information Visualization • Digital Curation • Human Computer Interaction • Bibliometrics • Information Institutions

INTELLIGENT SYSTEMS ENGINEERING
Bioengineering • Computer Engineering • Cyber-physical Systems • Environmental Engineering • Intelligent Systems • Molecular and Nanoscale Engineering • Neuroengineering

Geoffrey Fox
Distinguished Professor, Intelligent Systems Engineering Chair, Digital Science Center Director

Fox’s research focuses on applying computer science from infrastructure to analytics in biology, pathology, sensor clouds, earthquake and ice-sheet science, image processing, deep learning, manufacturing, network science, and particle physics. The infrastructure work is built around software defined systems on clouds and clusters. The analytics focuses on scalable parallelism.

He revolutionized computing as a founding member of the National Science Foundation’s Center for Research on Parallel Computation. Fox has produced work on parallel computation that is recognized as the start of the revolution in scalable scientific computing and thus has influenced the design and programming of virtually every high-end supercomputer in use today. He is also a professor of physics, as well as a fellow for the Association for Computing Machinery and the American Physiological Society.
RESEARCH CENTERS AND LABS

Our faculty conducts research that ranges from small, focused studies to large, complex projects that include other campus units and other universities, and they lead a wide range of highly visible centers and labs:

- The Biocomplexity Institute
- Center for Applied Cybersecurity Research
- Center for Bioinformatics Research
- Center for Complex Networks and Systems Research
- Center for Research in Extreme Scale Technologies (CREST)
- Center for Research on Mediated Interaction (CROMI)
- Center for Security Informatics
- Complex Adaptive Systems and Computational Intelligence (CASCi)
- Computer Vision Lab
- Cyberinfrastructure for Network Science (CNS) Center
- Data to Insight Center
- Digital Science Center
- Indiana University Network Science Institute
- Proactive Health Lab
- Rob Kling Center for Social Informatics
- Virtual World Heritage Lab
- Web Science Lab

Katy Börner

Distinguished Professor, Cyberinfrastructure for Network Science Center Director

Katy Börner has made a career out of making people see the point as a world leader in the field of information visualization.

She is the founding director of CNS where she has led the way in the study, development, and promotion of tools and services for the analysis and visualization of large-scale networks. Börner is also a member of the U.S. Department of Commerce’s Data Advisory Council.

Börner holds an M.S. in Electrical Engineering from the University of Technology in Leipzig and a Ph.D. in Computer Science from the University of Kaiserslautern, and she is the Victor H. Yngve Professor at SICE.

Figures as of fall 2017.
MASTER’S DEGREE PROGRAMS

SICE is a school where new discoveries are made and new disciplines are invented that will help you distinguish yourself in the workplace. Graduate students can look forward to studying in a collaborative environment where computer scientists and informaticists are working side-by-side with biologists, high-performance computing and visualization experts, and library and information scientists.

MASTER OF INFORMATION SCIENCE

Our M.I.S. graduates are the architects of the information culture. They analyze, organize, manage, and manipulate information, always considering how to make the result intuitive and easy to use. Our M.I.S. is accredited by the American Library Association and ranks ninth nationally by U.S. News & World Report.

Contact: ilsmain@indiana.edu

MASTER OF LIBRARY SCIENCE

The amount of information surrounding us increases every minute, and so does the value of people who can help us find what we need. Our M.L.S. students learn to find, organize, and preserve information—and connect people and communities to it. Our M.L.S. is accredited by the American Library Association and ranks ninth nationally by U.S. News & World Report.

Contact: ilsmain@indiana.edu

M.S. IN BIOINFORMATICS

Our M.S. in Bioinformatics program focuses on computation and informatics while also integrating knowledge from biology, mathematics, and related fields. Understanding how life works through disciplines such as molecular biology, chemistry, genetics, computer science, life science, and medical science, is the key to this discipline.

Contact: soiccesgr@indiana.edu
M.S. IN COMPUTER SCIENCE
In this program, you’ll develop a deep understanding of computing theory and applications. Our cross-disciplinary approach to computer science exposes you not only to the latest research in high-performance computing, data and search, artificial intelligence, and computer security, but also gives you the opportunity to apply those insights to real-world problems.

Contact: soiccsgr@indiana.edu

M.S. IN DATA SCIENCE
Handling and interpreting big data is one of the challenges of the 21st century, and an M.S. in Data Science will help you explore it as it relates to a range of applications and domains. Our two distinct paths—technical and decision-maker—allow you to customize your program to suit your interests. The 30-credit program is available on campus, online, or hybrid—a blended version with online and in-residence components.

Contact: datasci@indiana.edu

M.S. IN HUMAN-COMPUTER INTERACTION DESIGN
The goal of this discipline is to create functional, intuitive, and effective technology experiences for users. Our approach is research-based but still provides the flexibility for students to pursue individual interests. The M.S. in HCI/d will place you on the cutting edge of the latest research techniques and give you the skills to create the next great application or technology experience.

Contact: infograd@indiana.edu

M.S. IN INFORMATICS
In the M.S. in Informatics, students can specialize in any area where we have faculty and research expertise. It is an opportunity to explore and develop your personal interest in an exciting field.

Contact: infograd@indiana.edu

M.S. IN INTELLIGENT SYSTEMS ENGINEERING
Our Master’s in Intelligent Systems Engineering will provide students the opportunity to more deeply explore one of six overlapping areas: bioengineering, computer engineering, cyber-physical systems, environmental engineering, molecular and nanoscale engineering, and neuroengineering.

Contact: isegrad@indiana.edu

M.S. IN SECURE COMPUTING
We offer an interdisciplinary approach to information security that teaches and integrates the technical aspects of computer security with an understanding of human-computer interaction, privacy, policy, and legal issues. In our program, you will receive a technical foundation in designing, implementing, managing, and analyzing secure information technology systems.

Contact: soiccsgr@indiana.edu
DOCTORAL DEGREE PROGRAMS

Choosing a Ph.D. program is a career-defining decision, one driven by your research interests. The breadth of the School of Informatics, Computing, and Engineering provides limitless possibilities. Students can select a traditional path through our programs or blaze a trail with cross-disciplinary research from one of Indiana University’s diverse academic offerings.

PH.D. IN COMPUTER SCIENCE

The Ph.D. program in computer science offers the opportunity to conduct theoretical and practical research in a broad range of subfields of computer science or at the intersection of computer science and other disciplines (e.g. biology, cognitive science, statistics).

Major research concentrations include:

- Formal methods for system design, hardware, and robotics
- Foundations: Theory of computing, algorithms, and applied logic
- High-performance computing
- Cybersecurity
- Graphics and visualization
- Programming languages and compilers
- Artificial intelligence and cognitive science
- Distributed and parallel systems
- Database and information systems
- Computer networks and security

Contact: soicesgr@indiana.edu

PH.D. IN INFORMATICS

Informatics examines ways technology can be applied to every discipline and every profession. By studying informatics, you learn to develop, design, and create tools to integrate and drive innovative thinking using technology. With an advanced informatics degree, you can revolutionize how things are done and how people interact with technology while changing your community and the world.

Tracks include:

- Bioinformatics
- Complex Networks and Systems
- Computing, Culture and Society
- Human-Computer Interaction Design
- Intelligent and Interactive Systems
- Music Informatics
- Proactive Health Informatics
- Security Informatics

Contact: infograd@indiana.edu
PH.D. IN INFORMATION SCIENCE

We are training the next generation of information scientists. Whether your interest is in information architecture, information policy, digital libraries, information visualization, scholarly communication, computer-mediated communication, media management, knowledge organization, or another subfield, this is the place for you. Our Department of Information and Library Science is among the top-ranked graduate programs in this field.

Contact: ilsmain@indiana.edu

PH.D. IN INTELLIGENT SYSTEMS ENGINEERING

Explore how to engineer small-scale, networked, and mobile technology that changes lives and the world. With a Ph.D. in Intelligent Systems Engineering, you’ll be prepared for the future of engineering.

You can choose among six tracks:

- Bioengineering
- Computer Engineering
- Cyber-physical Systems
- Environmental Engineering
- Molecular and Nanoscale Engineering
- Neuroengineering

Contact: isegrad@indiana.edu
ADVANCE YOUR CAREER

REAL-WORLD EXPERIENCE

Whether you’re destined for industry, research, public service, or an academic career, SICE will give you the skills needed to excel.

You can gain hands-on experience by taking service-learning courses ranging from database development to information architecture. Most of our students complete internships to launch their careers. Our students have gone everywhere from the industry powerhouses of Google and Microsoft to the cultural icons of the Smithsonian Libraries and the Baseball Hall of Fame to the halls of academia at top universities and research labs.

If you’re interested in research, we’ve got you covered. Curiosity about the world and a commitment to solving problems motivate our faculty. Students work side-by-side with internationally-renowned professors who are harnessing the power of today’s technologies to change the world.

CAREER SERVICES

Students in our degree programs can take advantage of our dedicated Career Services office. They’ll help with every step of the job search process, starting with self-assessment and ending with negotiating a job offer. We host two career fairs annually that bring hundreds of recruiters to you.

Our graduates get great jobs when they graduate. Our 2016 SICE graduate students moved on to a broad range of companies and research institutions including Amazon, Carnegie Mellon, Facebook, Google, IBM, Intel Labs, Microsoft, OCLC, and Samsung.

Visit sice.indiana.edu/career to learn more.

APPLY TODAY

The application process differs for each program, and details can be found online at sice.indiana.edu/graduate.
BLOOMINGTON EXCEEDS EXPECTATIONS

A thriving live music scene, coffeehouses, farmers markets, festivals, eclectic restaurants, and picturesque scenery are just part of what makes Bloomington the cultural center of Indiana.

The home of the southernmost campus in the Big Ten, Bloomington is the quintessential college town—active, intellectual, inclusive, friendly, relaxed, and safe. Our small city has a population of more than 80,000 residents and 46,000 IU students, with cultural resources and opportunities that rival cities many times its size. All of this is affordable thanks to our low cost of living. Bloomington also is bike friendly—there are more than 200 miles of biking and running trails—and it is easy to navigate with free campus and city bus service provided to IU students.

The picturesque autumn views, the storybook town square, the limestone architecture, and the perfect blend of tradition with modern living has routinely landed the IU campus and Bloomington on lists of the most beautiful college towns in America.

Check out visitbloomington.com to learn more about our city.

Our students come from 42 states and 71 countries.