



COMPUTER SCIENCE AND ENGINEERING

Graduate Programs

AREAS OF SPECIALIZATION

The Division of Computer Science and Engineering offers both a Master of Science and PhD in Computer Science. Our graduate program is designed to be flexible in order to provide our students with opportunities to take courses and do research in both core and applied/interdisciplinary areas. There are currently about 100 students, roughly evenly split between the MS and PhD programs. Additionally, our graduate program is in the top 30 nationwide, according to the latest National Research Council ranking.

DEGREES OFFERED

MS in Computer Science

The MS in Computer Science program is an innovative and versatile curriculum, offering a wide range of opportunities to students. Combined with various concentrations and options, it aims to give students the education, training, and research skills and experiences they need to be successful in the many computer-oriented jobs that exist today. It can also serve as a stepping stone toward pursuing a doctoral degree in computer science. The curriculum covers core topics, such as theory of computation, algorithms, operating systems, programming languages, networks, cyber security, computer graphics, databases and analytics, and software development. In addition, the student may choose a systems-related specialization area and application of the techniques from these core areas.

PhD in Computer Science

The PhD in Computer Science program offers talented students the opportunity to prepare for research careers in universities or industrial laboratories. There is a strong and continuing demand for computer scientists to work at the frontiers of knowledge in both theoretical and applied specialties. Our curriculum covers several areas related to theoretical foundations, systems and architecture, cyber security, databases and data analytics, software, computational science, and digital media.

GRADUATE ADVISOR

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GRADUATE COORDINATOR

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FACULTY RESEARCH AREAS

Gerald Baumgartner

gb@csc.lsu.edu — design and implementation of domain-specific languages, compiler optimization, desktop grids, object-oriented languages, software engineering tools, embedded systems programming tools

Konstantin Busch

busch@csc.lsu.edu — distributed algorithms and data structures, communication algorithms, algorithmic game theory

Doris Carver

carver@csc.lsu.edu — requirement traceability, model-driven software development, reverse engineering, testing

Feng Chen

fchen@csc.lsu.edu — operating systems, storage systems (flash SSDs, persistent memory, cloud storage), data management in cloud and large-scale distributed storage systems

Jianhua Chen

jianhua@csc.lsu.edu — machine learning and data mining, data clustering, applications of machine learning for security, web mining and ontology construction, fuzzy logic and fuzzy systems, intelligent information retrieval and interactive systems, knowledge representation, logics in AI, non-monotonic reasoning

Bijaya Karki

karki@csc.lsu.edu — scientific visualization and applications, computational materials, large-scale simulations

Sukhamay Kundu

kundu@csc.lsu.edu — software modeling and analysis, networking, graph algorithms, data mining, clustering, machine learning

Kisung Lee

lee@csc.lsu.edu — scaling big data analytics, cloud computing, distributed computing systems, mobile computing and spatial data management, distributed data intensive systems, social network analytics

Anas Mahmoud

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Supratik Mukhopadhyay

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Seung-Jong Park

sjpark@csc.lsu.edu — big data and deep learning, cyberinfrastructure, high-performance computing, high-speed network, data center network, software-defined network

Golden Richard III

golden@csc.lsu.edu — cybersecurity, memory forensics, digital forensics, reverse engineering, malware analysis

Rahul Shah

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Mingxuan Sun

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Evangelos Triantaphyllou

trianta@csc.lsu.edu — data mining, decision making

Chen Wang

chenwang@csc.lsu.edu — cyber security and privacy, mobile sensing and computing, smart health care, internet of things, machine learning, wireless communications

Qingyang Wang

qywang@csc.lsu.edu — distributed systems and cloud computing (performance and scalability analysis of large-scale web applications)

Jinwe Ye

jye@csc.lsu.edu — computer vision, computational photography, computer graphics

Jian Zhang

zhang@csc.lsu.edu — machine learning and applications