

COLLEGE OF COMPUTING

The founding of the College of Computing in 1990 as a focal point for the interdisciplinary advancement of computing caps a history that began in 1963 with the establishment of the School of Information Science. In 1972, this school was succeeded by the School of Information and Computer Science, the immediate predecessor of the current College of Computing. The College of Computing at Georgia Tech is one of the first college-level units devoted to the study of computing in the country.

Computer science is an important basis for many activities and is a natural and powerful partner with a variety of other disciplines. The College offers instructional and research programs in many areas, including algorithms and data structures, intelligent systems and robotics, computer architecture, cognitive science, databases, distributed and parallel systems, educational technology, graphics and visualization, human-computer interaction, information security, information systems, networking and telecommunications, operating systems, parallel architectures, programming languages, software engineering, and theories of automata and computation.

Beginning in fall 2006, the undergraduate program was organized around the Threads™ program developed by College of Computing faculty. A Thread™ is an intuitive, flexible, and mutually strengthening set of courses that allows students to craft a distinctive future in any computing-related field. Based on their particular interests, students will choose two Threads™ consisting of computing combined with modeling and simulation, devices, theory, information internetworks, intelligence, media, people, or platforms in order to weave a technical degree with a broad collection of skills and learning experiences they need to thrive in a globally competitive world. This approach allows the computing program to retain its strong computer science foundations yet encourages partnerships with the multitude of disciplines affected by computing and technology.

The College conducts an increasing number of interdisciplinary research and instructional programs jointly with other campus units and operates three centers of interdisciplinary research for the campus:

- The Center for Experimental Research in Computer Systems (CERCS);
- The Graphics, Visualization, and Usability (GVU) Center; and
- The Georgia Tech Information Security Center (GTISC).

The College's operations are housed in parts of five separate buildings on campus, including the College of Computing building.

The College awards:

- bachelor's degrees in computer science (CS),
- bachelor's degrees in computational media (jointly with the School of Literature, Media, and Communication),
- master's degrees in computer science,
- master's degrees in information security, and
- doctoral degrees in computer science and human-centered computing.

The College offers an undergraduate CS minor. The College also offers the Master's degree in human-computer interaction in collaboration with the School of Literature, Media, and Communication and the School of Psychology. The College is a sponsor of a multidisciplinary program in Algorithms, Combinatorics, and Optimization, an approved doctoral degree program at Georgia Tech. Master's and doctoral degrees in

bioengineering can be pursued through the College as one of the units participating in the Institute-wide interdisciplinary Bioengineering Program. A doctoral degree in bioinformatics can also be pursued through the College in conjunction with the School of Biology.

The following undergraduate computing programs are accredited by the Computing Accreditation Commission of ABET, www.abet.org (<http://www.abet.org>):

- Bachelor of Science in Computer Science (<http://www.catalog.gatech.edu/programs/computer-science-bs>)
- Bachelor of Science in Computational Media (<http://www.catalog.gatech.edu/programs/computational-media-bs>)
- Algorithms, Combinatorics, and Optimization. PhD (<http://www.catalog.gatech.edu/programs/algorithms-combinatorics-optimization-phd>)
- Analytics. MS (<http://www.catalog.gatech.edu/programs/analytics-ms>)
- Bioengineering. MS (<http://www.catalog.gatech.edu/programs/bioengineering-ms>), PhD (<http://www.catalog.gatech.edu/programs/bioengineering-phd>)
- Bioinformatics. MS (<http://www.catalog.gatech.edu/programs/bioinformatics-ms>), PhD (<http://www.catalog.gatech.edu/programs/bioinformatics-phd>)
- Computational Media. BS (<http://www.catalog.gatech.edu/programs/computational-media-bs>)
- Computational Science and Engineering. MS (<http://www.catalog.gatech.edu/programs/computational-science-engineering-ms>), PhD (<http://www.catalog.gatech.edu/programs/computational-science-engineering-phd>)
- Computer Science. BS (<http://www.catalog.gatech.edu/programs/computer-science-bs>), MS (<http://www.catalog.gatech.edu/programs/computer-science-ms>), PhD (<http://www.catalog.gatech.edu/programs/computer-science-phd>)
- Computing and Business. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-business>)
- Computing and Devices. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-devices>)
- Computing and Information Internetworks. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-information-internetworks>)
- Computing and Intelligence. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-intelligence>)
- Computing and People. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-people>)
- Computing & Systems and Architecture. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-systems-architecture>)
- Computing and Theory. Minor (<http://www.catalog.gatech.edu/programs/minor-computing-theory>)
- Cybersecurity. MS (<http://www.catalog.gatech.edu/programs/cybersecurity-ms>)
- Human-Computer Interaction. MS (<http://www.catalog.gatech.edu/programs/human-computer-interaction-ms>)
- Human-Centered Computing. PhD (<http://www.catalog.gatech.edu/programs/human-centered-computing-phd>)
- Machine Learning. PhD (<http://www.catalog.gatech.edu/programs/machine-learning-phd>)

- Robotics. PhD (<http://www.catalog.gatech.edu/programs/robotics-phd>)