

# Erik Jonsson School of Engineering and Computer Science

Bachelor of Science in Computer Science



A computer science degree not only prepares students to design and build software but also provides them with the skills to address broad issues such as developing innovative ways to send data over networks. Training in computer science also enables students to work as part of a team in a vast number of areas, including robotics, computer vision and digital forensics.

## Careers in Computer Science

You'll find computer science careers in virtually every industry, from finance to Web design to software development. Computer scientists work on data security, data mining, computer graphics, artificial intelligence, machine learning, virtual reality, game design, animation and biotechnology. What all these computer science careers have in common is the foundation in discrete mathematics. Our curriculum provides this foundation at the start, and we build upon it with an ample selection of courses in the core areas of the discipline.



## High School Preparation

Computer science requires strong high school preparation. A minimum of elementary algebra and geometry should be completed, while trigonometry, calculus, physics and chemistry are highly recommended. Any Advanced Placement courses in computer science or advanced technology are highly beneficial. Solid communication skills are essential since most computer science professionals work as part of a team.

## Computer Science at UT Dallas

One of the largest departments of its kind in the country, the Computer Science Department at UT Dallas features an internationally recognized faculty, more than 2,800 students and a 150,000-square-foot building with modern classrooms and cutting-edge laboratories.

The core of the bachelor's degree curriculum in computer science includes programming methodologies, the analysis of algorithms and data structures and the study of operating systems. The curriculum continues with courses in advanced data structures, programming languages and automata theory, culminating in a challenging project course in which students demonstrate the use of computer science techniques. We also offer a rich choice of application areas, including digital systems design, computer networks, virtual reality, machine learning, embedded systems, computer imaging, artificial intelligence, cognitive modeling and human-computer interaction.

## Internships and Fast-Track

The Erik Jonsson School operates one of the largest internship and cooperative education programs of its kind, averaging more than 2,800 undergraduate and graduate student placements a year at Dallas-area high-tech companies, including State Farm, Lockheed Martin, AT&T, Fujitsu Laboratories of America, Samsung Electronics, Cisco, Texas Instruments, Intel, Raytheon and IBM.

The Fast-Track Program enables exceptionally gifted undergraduate students to include master's level courses in their undergraduate degree plans. When Fast-Track students graduate with a bachelor's degree, they are automatically admitted to graduate school at UT Dallas. The hours required to complete the master's degree are reduced by up to 15 hours by the number of Fast-Track graduate hours completed.

## Contact Information

### Office of Admission and Enrollment

800 West Campbell Road  
Richardson, TX 75080-3021  
Phone: 972-883-2270 or 1-800-889-2443  
Email: [interest@utdallas.edu](mailto:interest@utdallas.edu)  
Website: [utdallas.edu/enroll](http://utdallas.edu/enroll)

### Computer Science Undergraduate Program

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Website: [utdallas.edu/~daescu](http://utdallas.edu/~daescu)

### Computer Science Program

Erik Jonsson School of Engineering and Computer Science, EC-31  
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800 West Campbell Road  
Richardson, TX 75080-3021  
Website: [cs.utdallas.edu](http://cs.utdallas.edu)

For complete admission and degree requirements, view the Undergraduate Catalog at [catalog.utdallas.edu](http://catalog.utdallas.edu)

800 W Campbell Rd, Richardson, TX 75080  
[utdallas.edu](http://utdallas.edu)

# Erik Jonsson School of Engineering and Computer Science



The Jonsson School is strategically located in the Telecom Corridor, home of the second-largest high-tech economy in the U.S. The School recently completed a major public-private initiative that greatly expanded its capabilities, including construction of a new state-of-the-art 220,000-square-foot interdisciplinary research building, and this year is opening a 200,000-square-foot engineering building. With more than 165 tenured/tenure-track faculty members, 7,400 students, and \$53 million in research funding, the Jonsson School has six academic departments:

Bioengineering	Computer Engineering	Computer Science
Materials Science and Engineering	Mechanical Engineering	Systems Engineering

The school also offers a minor in nanoscience and technology.

## Degrees Offered

**Bachelor of Science:** Biomedical engineering, computer engineering, computer science, electrical engineering, mechanical engineering, software engineering

**Master of Science:** Biomedical engineering, computer engineering, computer science, electrical engineering, materials science and engineering, mechanical engineering, software engineering, systems engineering and management\*, telecommunications engineering

**Doctor of Philosophy:** Biomedical engineering, computer engineering, computer science, electrical engineering, materials science and engineering, mechanical engineering, software engineering, telecommunications engineering

\*Joint program between Jindal School of Management and Erik Jonsson School of Engineering and Computer Science.

## Research

Research efforts underway at the school involve such cutting-edge technology as:

Medical imaging	Speech Recognition	Materials characterization	Cochlear implant technology
Cybersecurity	Organic electronics	Physical, chemical and biosensors	Wireless networking
Carbon nanotubes	Micro-electromechanical systems	Semiconductor design	

## Additional Facts

The Jonsson School's recent growth surge has helped propel its undergraduate programs into *U.S. News & World Report's* annual rankings of the nation's top schools of engineering.

The school's graduate program has continued its rise through the national *U.S. News* rankings, now placing among the top 25 public university graduate programs and ranking third in Texas.

The Jonsson School has significantly increased the size of its faculty in recent years, hiring top recent graduates of Stanford University, Cornell University, Purdue University, Georgia Tech and UCLA, as well as seasoned professionals from Rutgers University, University of Southern California, University of California, Davis, Sandia National Laboratories, Freescale Semiconductor and Texas Instruments.

The Jonsson School features a variety of student organizations that are actively involved in both academic and social activities. Completely student-run, these include the Association for Computing Machinery, the Game Development Group, the National Society of Black Engineers, a chapter of the scientific research society Sigma Xi, the Society of Hispanic Professional Engineers and the Society of Women Engineers.

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