Erik Jonsson School of Engineering and Computer Science

Doctor of Philosophy in Computer Science

UTD

The graduate programs in computer science offer intensive preparation in design, programming, theory and applications. Training is provided for both academically oriented students and students with professional goals in the many business, industrial and governmental occupations requiring advanced knowledge of computing theory and technology.

Courses and research opportunities are offered in a variety of subfields of computer science, including operating systems, computer architecture, computer graphics, pattern recognition, automata theory, combinatorics, artificial intelligence, machine learning, database design, computer networks, programming languages, software systems, analysis of algorithms, computational complexity, parallel processing, VLSI, virtual reality, internet of things, embedded and real-time systems, computational geometry, computer vision, design automation, cyber security, information assurance and data science.

The University maintains a large network of computer facilities including specialized computers for research within the program. In addition to computer science faculty, many other individuals at the University are involved in computer-related work in the physical and social sciences and in various areas of business and management. Computer science students with an interest in these important application areas may have opportunities to consult and work with talented faculty from a wide range of disciplines.

Program Description

The PhD in Computer Science requires 75 semester credit hours minimum beyond the baccalaureate degree.

Graduate assistantships feature a full tuition waiver and a stipend starting at $1,850/month and increasing to $2,150/month. Other opportunities include Jonsson School Distinguished Graduate Research Fellowships, the Computer Security and Information Assurance Scholarship for Service Program Fellowships, teaching assistantships and research assistantships. MS students on track to a PhD are also fully supported. Exceptional candidates are awarded a research excellence scholarship over and above the GA stipend.

For complete admission and degree requirements, view the Graduate Catalog at **catalog.utdallas.edu**.

Career Opportunities

Graduates of the program seek academic positions at universities, as well as positions as researchers, senior software engineers, data scientists. Graduates often become industry experts in fields like cyber security, artificial intelligence, machine learning or natural language processing.

Marketable Skills

Upon successful completion of the PhD in Computer Science, graduates will be able to enter the workforce with the following skills:

- Developing new algorithms or techniques to solve complex computing problems
- Developing advanced, novel software systems
- Advanced critical thinking
- Conducting independent research
- Mentor and/or teach in the Computer Science field

Contact Information

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