Computer Science

Master of Science in Computer Science
Doctor of Philosophy

For More Information

Campus address: Gates Dell Complex (GDC) 2.702, phone (512) 232-7407, fax (512) 471-8885; campus mail code: D9500

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E-mail: csadmis@cs.utexas.edu
URL: http://www.cs.utexas.edu/

Facilities for Graduate Work

To provide the most advanced resources for teaching and research, the Department of Computer Science manages its own network and system of more than 1,000 hosts. A staff of 12, under the direction of the department chair, specifies, buys, installs, and maintains this computing infrastructure. Through accounts on the department's Linux and MacOS workstations, students, faculty members, and staff have access to public laboratories and private equipment.

Many different computer systems are available for research use by faculty members and students in the department. The department operates a general-purpose high-throughput computing (HTC) Linux cluster with over 2,000 cores, Dell PowerEdge checkpoint servers, 100 nVidia GPUs of various types, and a NetApp filer with 77TB of storage. This cluster, as well as all public computing resources, are available to everyone via HTCondor, a resource management tool for widely distributed systems. There are several hundred Linux machines in public labs, and there are over 100 Linux boxes on graduate desks. Several hundred other workstations of varying configurations and platforms are located in private research labs or on researchers’ desks.

All departmental computers are networked together using one or 10 Gigabits per second Ethernet. The network, managed and maintained by staff, consists of over 100 Cisco switches, with a Cisco 6513 serving as its point of presence and firewall. Network-accessible storage is provided by a NetApp filer with 77TB of space dedicated to cluster computing work and 75TB for home directories as well as infrastructural, project and course-related storage.

Areas of Study

Graduate study in computer science is offered in the following areas: analysis of algorithms; artificial intelligence; automated reasoning; communication protocols; compilers; computational biology; computational complexity; computational visualization; computer architecture; computer graphics; computer networks; computer vision; cryptography; data mining; database management; distributed systems; fault-tolerant computing; formal methods; machine learning; mathematical software; mobile and ad hoc networks; natural language processing; neural networks; numerical analysis; operating systems; parallel programming; programming language design and implementation; randomized algorithms; real-time systems; robotics; scientific computing; secure computing; software construction from components; system modeling; theoretical computer science; and wireless networks. The Master of Science and PhD degrees in Computer Science are STEM Designated Degree Programs, as identified by the Department of Homeland Security for purposes of the 24-month STEM optional practical training extension.

Graduate Studies Committee

The following faculty members served on the Graduate Studies Committee (GSC) in the spring 2023 semester.

Scott J Aaronson  Risto P Miikkulainen
Aditya Akella  Daniel P Miranker
Chandrakjit L Bajaj  Alyosius K Mok
Donald S Batory  Raymond J Mooney
George Biros  Dana Hadar Moshkovitz aaronson
Joydeep Biswas  Scott David Niekum
James Bornholt  Evdokia Nikolova
Alan C Bovik  Gordon S Novak Jr
Constantine Caramanis  Amy Pavel
Swarat Chaudhuri  Simon Peter
Shuchi Chawla  Keshav K Pingali
Eunsol Choi  C Greg Plaxton
Inderjit S Dhillon  William H Press
Isil Dillig  Eric Price
Georgios-Alex Dimakis  Lili Qiu
Gregory C Durrett  Vijaya Ramachandran
Katrin E Erk  Christopher J Rossbach
Donald S Fussell  Sujay Sanghavi
Anna Gal  Purnamrita Sarkar
Joydeep Ghosh  James G Scott
Milos Gligoric  Hovav Shacham
Kristen L Grauman  David Soloveichik
Danna Gurari  Peter H Stone
David Harwath  Andrea Lockerd Thomaz
Qixing Huang  Ufuk Topcu
Warren A Hunt Jr  Robert A Van De Geijn
Alexander Huth  Vijaychidambaram Velayudhan
Adam R Klivans  Pillai
Philipp Kraehenbuehl  Paul Etienne Vouga
Matthew Alan Lease  Atlas Wang
Min Kyung Lee  Brent R Waters
Jessy Li  Emmett Witchel
Calvin Lin  John Wright
Qiang Liu  David Junzi Wu
Roberto Martin-Martin  Yuke Zhu
Kenneth McMillan  David I Zuckerman

Admission Requirements

Most entering graduate students have degrees in computer science. Students with degrees in other areas may be considered for admission; if admitted, they may be required to take undergraduate courses in computer science, without credit toward a graduate degree, to satisfy background requirements.