

Computer Science M.S., Ph.D.

What can you expect from the Master's and PhD programs in the Computer Science Department?

The Department of Computer Science (CS) offers M.S. and Ph.D. degrees. Areas of research include analysis of algorithms, artificial intelligence, computer animation, computer games, computer graphics, computational logic, computer security, computer and sensor vision, data science, database systems, data visualization, image processing, image synthesis, machine learning, programming languages and environments, real-time embedded systems, software engineering, parallel and distributed computation, operating systems, storage systems, and visual analytics.

The M.S. degree in Computer Science has two tracks: thesis or project. Both are usually completed in two years, although it is possible to complete the program in one year. The PhD degree in Computer Science is usually completed in five years.

What salary (on top of tuition and fees) do first-year Graduate Student Researchers in your program earn?

Our GSRs earn between \$5,662 - \$6,039 per quarter.



When are graduate applications due for your program?

January 3, 2015

Where can I find detailed information about the admission and application process?

ga.soe.ucsc.edu/admissions

Who can I contact for more information?

Professor Wang-Chiew Tan, Graduate Director
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Tracie Tucker, Graduate Program Adviser
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Computer Science Faculty

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Dimitris Achlioptas Analysis of algorithms, machine learning, random structures

Scott Brandt Vice Chancellor for Research. Operating systems, storage systems, real-time systems

Seshadhri Comandur Randomized algorithms, graph/network analysis, algorithms for massive data

James Davis ICTD, technology for global social issues, human computation, computational photography, computer vision, computer graphics

Luca de Alfaro Reputation systems, crowdsourcing, game theory, formal methods.

Cormac Flanagan Programming languages, computer security, web programming, concurrency, verification, type systems, dynamic analysis.

Lise Getoor Machine learning, reasoning under uncertainty, artificial intelligence and database systems.

David Helmbold Machine learning, computational learning theory, analysis of algorithms

Phokion G. Kolaitis Computer Science Department Chair. Principles of database systems, logic in computer science, and computational complexity.

Suresh Lodha Data curation, analytics, and visualization, computer vision

Darrell Long Director of the Storage Systems Research Center. Storage systems, distributed computing, operating systems, mobile computing, reliability, computer security, video-on-demand systems

Charlie McDowell Programming languages, parallel computing, and computer science education

Ethan L. Miller Archival storage systems, non-hierarchical file systems and metadata management, non-volatile memory and next-generation storage, scalable file systems, reliable and secure storage, distributed systems, information retrieval, computer security

Alex Pang Uncertainty visualization, tensor visualization, scientific visualization, comparative visualization, collaboration software, virtual reality interfaces

Ira Pohl Artificial intelligence, programming languages, heuristic methods, educational and social issues, combinatorial algorithms

Neoklis Polyzotis Online index tuning, P2P database systems, ranked queries, skyline queries

Wang-Chiew Tan Data integration, data provenance, scientific databases, crowdsourcing.

Allen Van Gelder Logic programming algorithms, parallel algorithms, complexity, programming languages, automated theorem proving, scientific visualization

S V N Vishwanathan Machine learning, optimization, structured data, recommendation systems.

Marilyn Walker Dialogue systems, natural language processing, computer games, human-computer interaction, machine learning, artificial intelligence

Manfred Warmuth Online learning, machine learning, statistical decision theory, game theory, analysis of algorithms

Computational Media Faculty

Arnav Jhala Artificial Intelligence: storytelling in games, intelligent machinima generation, smart graphics, and intelligent user interfaces

Michael Mateas Computational Media Department Chair and Director, Center for Games and Playable Media. Artificial Intelligence (AI) for art and entertainment, game AI, AI and creativity, AI-based interactive storytelling, autonomous characters

Marilyn Walker Dialogue systems, natural language processing, computer games, human-computer interaction, machine learning, artificial intelligence

Noah Wardrip-Fruin Digital media, computer games, electronic literature, software studies

Jim Whitehead Software engineering, software evolution, software bug prediction, level design in computer games, procedural content generation

