

Computer Science: Systems PhD Student Admission



THE UNIVERSITY OF
CHICAGO

Department of Computer Science: Fall 2013 PhD Student Admission in Systems

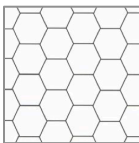
The University of Chicago's Department of Computer Science has launched a strategic initiative to build an extraordinary Systems Group. With a strong core of faculty and students in place, we are looking to grow significantly the number of PhD students in the next couple of years. Our areas of systems research are clustered around Data-Intensive Computing, defined expansively to include all areas, including but not limited to Computer Architecture, Databases, Distributed Systems, Graphics, Networking, Operating Systems, Programming Languages, Systems Biology, and Visualization.

Growth of the Systems Group has the strong support of the department and the university. In the last two years, our department has grown rapidly by hiring five senior and junior faculty in Systems and Artificial Intelligence: Andrew Chien, Haryadi Gunawi, Henry Hoffmann, Risi Kondor, and John Lafferty. Over the next several years, we anticipate doubling the number of systems faculty and doctoral students. The Systems group has deep ties to the Computation Institute and Argonne Natl Lab's Math and Computer Science Division. We also enjoy strong relationships with academic and industrial partners in the Chicago area.

To apply, please visit: http://www.cs.uchicago.edu/info/phd_prog (Deadline: Jan 2)

Computer Science Systems Research Projects (as of Sept 2012):

<http://systems.cs.uchicago.edu>



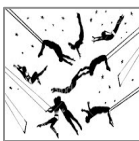
BHIVE

A Modeling and Simulation Environment for Large-scale study of Cellular Community Behavior



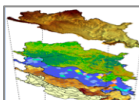
Diderot

A Parallel Domain-Specific Language for Image Analysis & Visualization



EASE

Easy Exabyte Computing
(includes GVR: [Global View Resilience](#) and [Blockus](#))



ExM

System support for extreme-scale, many-task applications

Computer Science: Systems PhD Student Admission



Globus Online

Enabling Computational Science with Online Services



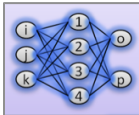
KBASE

The Systems Biology Knowledgebase



Manticore

High-level parallel programming for multicore



SEEC

A Framework for self-management of performance, resilience, energy, and accuracy tradeoffs in extreme-scale computing systems



10x10

Taming Heterogeneity for General-Purpose Computing



UCARE

UChicago systems research on Cloud Availability Reliability and Elasticity



XSEDE

Extreme Science and Engineering Discovery Environment

Research Projects by Areas and Topics:

General Areas:

Computer Architecture	: SEEC, 10x10
Databases	: UCARE, Blockus
Distributed Systems	: Globus, UCARE, XSEDE
Operating Systems	: UCARE
Programming Languages	: Diderot, Manticore, Blockus, GVR
Systems Biology	: BHIVE, KBASE
Visualization	: Diderot

Specific Topics:

Energy Efficient Computing	: SEEC, 10x10, Manticore
Reliable Computing	: UCARE, GVR
Data-Intensive Computing	: BHIVE, Blockus, Diderot, Globus, UCARE, XSEDE
Parallel Programming	: Diderot, Manticore, GVR

For more please visit our website at <http://systems.cs.uchicago.edu>

Computer Science: Systems PhD Student Admission

Current Systems Faculty:

Andrew A. Chien (MIT), William Eckhardt Professor, Interests: Large-scale Computing Systems – Computer Architecture, Systems Software, Storage, and Data-Intensive Applications. Former Vice President of Research, Intel Corp.

Ian T. Foster (Imperial College), Arthur Holly Compton Distinguished Service Professor, Interests: Tools for Scientific Computing, Grid and Cloud Computing, Distributed Systems. Director – UC/ANL Computation Institute.

Haryadi S. Gunawi (Wisconsin), Assistant Professor, Interests: Cloud Computing Operating Systems, Storage Systems, and Distributed Systems.

Henry Hoffmann (MIT), Assistant Professor, Interests: Parallel architecture and Systems Software, Power-Aware Computing, Accuracy-Aware Computing, Decision Making in Self-Managing Computer Systems.

Gordon L Kindlmann (Utah), Assistant Professor, Interests: Scientific Visualization and Image Analysis for Biomedical Applications.

John Reppy (Cornell), Professor, Interests: Parallel and Concurrent Programming Languages, Functional and Object-Oriented Languages, Design and Implementation.

Anne Rogers (Cornell), Associate Professor, Interests: Data-Intensive Computing, Computer Science Undergraduate and Graduate Education. Winner of Quantrell Award for Excellence in Undergraduate Teaching.

Rick Stevens (WMU), Professor, Interests: Computational Biology and Metagenomics, High-Performance Computing and Visualization. Director -- Computing, Environment, and Life Sciences at Argonne National Laboratory.

A full list of the >20 affiliated Fellows, Scientists, and Postdoctoral Scholars engaged in systems research can be found at <http://systems.cs.uchicago.edu/>

For more information, feel free to email any of the Systems Faculty.

Computer Science: Systems PhD Student Admission

About the University of Chicago

The University of Chicago is one of the world's great intellectual communities. Founded in 1890 with an extraordinary donation by John D. Rockefeller it has grown to over 2,000 faculty and 15,000 students. Founded with a focus on research excellence, the University continues this tradition with numerous Nobel Prize and other notable awards. The University of Chicago is consistently ranked in the top dozen universities in the world with top-ranked programs in the sciences, humanities, and professional schools.

The Department of Computer Science is the hub of a large, diverse computing research community of focused on advancing foundations of computing and driving its most advanced applications. Long distinguished in theoretical computer science and artificial intelligence, the Department is now building a strong Systems research group. This closely-knit community includes the Computation Institute, the Toyota Technological Institute, and Argonne's Mathematics and Computer Science Division.

For more information, feel free to email any of the Systems Faculty.