Overview
The Computer Science and Informatics Ph.D. program focuses on emerging, interdisciplinary areas of computing research with a curriculum grounded in core areas of applied mathematics, algorithms, and data and information management. The program integrates collaborative training opportunities with Emory Schools of Medicine and Public Health, the Woodruff Library, and the Centers for Disease Control and Prevention. Students interested in the application of computing to biomedical research may elect the Biomedical Informatics Concentration.

The Biomedical Informatics Concentration
The Biomedical Informatics Concentration (BMI) will focus on the effective use of biomedical data, information and knowledge for biomedical and clinical research, as well as decision support, driven by efforts to improve human health. This is a multidisciplinary concentration, jointly administered by The Departments of Mathematics and Computer Science, Biostatistics and Bioinformatics, and Emory’s Center for Comprehensive Informatics. Please visit the Math/CS Homepage for additional information: http://www.mathcs.emory.edu

Faculty and Research

Eugene Agichtein, Ph.D., Columbia, 2005

Michele Benzi, Ph.D., numerical linear algebra, Markov chains, NC State, 1993

DuBois Bowman, Ph.D., UNC Chapel Hill, 2000

Shun Yan Cheung, Ph.D., Georgia Tech, 1990

Sharath R Cholleti, Ph.D., Washington Univ., 2008

Lee Cooper, Ph.D., Ohio State, 2009

Michelangelo Grigni, Ph.D., MIT, 1991

Vicki Hertzberg, Ph.D., Washington, 1980

James J. Lu, Ph.D., Northwestern, 1992

Ken Mandelberg, Ph.D., Cornell, 1973

James Nagy, Ph.D., North Carolina State, 1991

Andrew Post, M.D., Ph.D., Pittsburgh, 2006

Zhao hui (Steve) Qin, Ph.D., Michigan, 2000

Joel Saltz, M.D., Ph.D., Duke, 1985

Asish Sharma, Ph.D., USC, 2005

Joan Smith, Ph.D., Old Dominion, 2008

Alfredo Tirado-Ramos, Ph.D., Amsterdam, 2007

Vaidy Sunderam, Ph.D., Kent (England), 1986

James Taylor, Ph.D., Penn State, 2006

Lance Waller, Ph.D., Cornell, 1992

Fusheng Wang, Ph.D., UCLA, 2004

Patrick Widener, Ph.D., Georgia Tech, 2005

Hao Wu, Ph.D., Johns Hopkins, 2010

Li Xiong, Ph.D., Georgia Tech, 2005

Tianwei Yu, Ph.D., UCLA, 2005

ongoing projects
° developing integrated tools and techniques for de-identifying structured and unstructured (text) data
° developing techniques for concept, relation, and event extraction from clinical notes and reports
° mining and fusing textual data for improving patient status prediction
° modeling and mining massive deep-sequencing data to gain insights on areas ranging from transcription regulation to pathogenesis of complex diseases
° developing statistical and numerical tools for the assessment of rupture risk in cerebral aneurysms
° developing tools to support an exploratory model of data analysis for researchers to effectively browse data sets
° developing systems software and middleware for high-performance I/O and data management for data-intensive applications
° developing methods and infrastructure to support the translation of raw experimental data into biologically meaningful discoveries

Financial Aid
Each qualified student admitted to the program is eligible to receive a full tuition waiver and a stipend for the duration of their study, provided that the student makes satisfactory annual progress. Stipend may be in the form of research and teaching assistantships or fellowships. Special fellowships and professional development support funds are available on a competitive basis.

Application:
A complete application includes the application form, official transcripts, three letters of recommendations, official GRE scores (general exam only), and financial certification (for international students). Submit online:

http://www.gs.emory.edu/admissions/application.php

The application deadline is January 3.

M.S. Degree Programs: The Math/CS department offers programs leading to the Master's degree in Computer Science and Computer Science with Biostatistics Concentration.