

Department of Biomedical Informatics

Computer Science and Informatics Graduate Program

As a student in Emory's Biomedical Informatics program, you will benefit from a truly interdisciplinary environment and the opportunity to collaborate with experts from the School of Medicine, the School of Nursing, the Rollins School of Public Health, the Laney Graduate School, and the College of Arts and Sciences.

Program Overview

As part of the Laney Graduate School at Emory University, the Computer Science and Informatics (CSI) graduate program focuses on emerging, interdisciplinary areas of computing research building on Emory's traditional strengths in medicine, life sciences, and social and behavioral sciences.

The Biomedical Informatics concentration (BMI) focuses 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.

Graduates will find careers in teaching and research facilities of educational and medical institutions, industry and hospitals, and law and government regulatory agencies.

Graduate study is comprised of developing advanced computational techniques and strategies that directly impact patient care and clinical and biomedical research.

This is a multidisciplinary concentration, jointly administered by the Departments of Biomedical Informatics, Biostatistics and Bioinformatics, and Computer Science.



BMI At-A-Glance

Our research focus areas include

- imaging
- natural language processing
- computer vision
- computational -omics and systems biology
- clinical Informatics (with critical care)
- neuroscience and neuromechanics
- cardiology/diabetes
- signal processing
- machine learning
- mHealth
- maternal/child health
- global health
- health equity and ethics

BMI Courses

- BMI 500: Intro to Ethical Data Science and Informatics
- BMI 510: Biostatistics for Machine Learning
- BMI 520: Practical Computing for Informatics
- BMI 532: Model-Based Machine Learning
- BMI 534: Introduction to Machine Learning
- BMI 536: Introduction to Deep Learning
- BMI 539: Topics in Machine Learning
- BMI 540: Time Series Analysis and Modeling
- BMI 550: Applied Biomedical Natural Language Processing
- BMI 555: Computational Methods for Biomedical Image Analysis
- BMI 562: Cancer Single Cell Analytics
- BMI 585: Topics in Biomedical Informatics
- ... more courses to come!

Our grant sources include federal institutes including the National Institutes of Health (NIH), the Centers for Disease Control and Prevention (CDC), and the National Science Foundation (NSF), private foundations, and industry giants like Google.



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Core BMI Faculty



Gari Clifford,
DPhil, *Chair*



Selen Bozkurt,
PhD



Azra Ismail,
PhD



Rishi
Kamaleswaran,
PhD



Nasim Katebi,
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Hyeokhyen
Kwon, PhD



Qiao Li, PhD



Babak
Mahmoudi,
PhD, *Vice Chair
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Lucas McKay,
PhD MSCR, *Vice
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Samaneh
Nasiri, PhD



Tony Pan, PhD



Ali Bahrami
Rad, PhD



Matt Reyna, PhD,
*Vice Chair for
Education and
Training*



Reza Sameni,
PhD



Abeed Sarker,
PhD, *Vice Chair
for Research*

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Emory University is one of the major scientific research and medical research centers in the Southeast and is among the fastest growing Medical Centers in the United States. Emory is consistently ranked in the top 20 institutions nationally for NIH research support. Newsweek magazine, in a testament to our quality and dedication to education, recently named Emory University as one of the 25 "New Ivies." Emory is recognized as a leader in higher education in sustainability and has won numerous awards. The Best Colleges has placed Emory in the top 10 in the nation in the categories of greenest universities and the most beautiful college campuses



For additional information, please contact study@dbmi.emory.edu