An Innovative PhD Program Encompassing Computer Science, Electrical Engineering, Biomedical Informatics, Statistics, Business, and Journalism

Advances in communication, transmission, sensor, and instrument technology have made it possible to generate, collect, and store data in quantities never before possible. Nonetheless, the rapid evolution of our data-rich society does present enormous opportunities to those who can capitalize on it. Knowledge discovery can be accelerated by the development of new and effective means for the translation of data to information and information to solutions. Such knowledge discovery can drive innovation and economic development.

The vision of this IGERT is to make such collaborations possible, to move our society from one with a surfeit of data to one with useful and targeted information. A key component of this vision is the training of a new generation of PhD students who have the skills to make sense of vast amounts of data from many sources and media and the desire and ability to apply their skills to the provision of solutions to real world problems.

A primary goal of this IGERT is to establish a new interdisciplinary program at Columbia and CUNY to educate PhD students in advanced information extraction, analysis, and presentation approaches that can be applied to multiple types of data (text, audio, image, video) and to engage them in the application of these approaches to problems in real world domains, specifically, medicine, journalism, and business. The new generation of PhD students will receive training that integrates data collection and analysis techniques with applications to business, medical informatics, and journalism. Students will receive training in (1) Statistics, machine learning, and data mining techniques; (2) Applications of these techniques to text, audio, and video data; (3) Uses of social media as information sources; and (4) Information needs of medicine, journalism, and business.

All IGERT Trainees receive the fellowship support provided by the National Science Foundation, including full tuition, fees, and a stipend for a minimum period of two years.

Eligibility: Open to any U.S. Citizen or Permanent Resident. Applicants who do not meet this eligibility requirement may still apply and participate as an Affiliate (will not be eligible for fellowship support).

How to Apply: http://www.cs.columbia.edu/igert/howtoapply.shtml

For more information, visit http://www.cs.columbia.edu/igert or contact Diana Kim, IGERT Coordinator, at dk2629@columbia.edu.