BLOOMBERG DISTINGUISHED PROFESSORSHIPS PROGRAM: CLUSTER INITIATIVE

AI-X

Bloomberg School of Public Health | Krieger School of Arts and Sciences
School of Medicine | Whiting School of Engineering

LEADS:

Rama Chellappa, *Bloomberg Distinguished Professor of Computer Vision and Machine Learning; Department of Electrical and Computer Engineering, Whiting School of Engineering; Department of Biomedical Engineering, School of Medicine*

Elana Fertig, *Co-Director, Convergence Institute; Associate Professor, Department of Oncology, School of Medicine; Department of Biomedical Engineering, School of Medicine; Department of Applied Mathematics and Statistics, Whiting School of Engineering*

RECRUITING:

3 Bloomberg Distinguished Professors

3 Junior faculty

ABOUT THE CLUSTER

This cluster will focus on the integration of data science and machine learning with the deep domain expertise at Johns Hopkins to develop scalable and multimodal AI systems that drive discovery, decision-making, and prediction in science, engineering, medicine, and public health. The driving vision is towards AI systems that collaborate with humans to understand and improve the human condition. The design of these systems requires interpretability for experts and integrates domain knowledge with data-driven AI. These systems must include human-AI interactions and collaborations, as well as conditioning on many data types (including images, videos, audio recordings, natural language text, electronic medical records, genomics). Recognizing that these data types can often lead to the creation of algorithms that exacerbate racial and other biases, these systems must also ensure equity, fairness, accountability and transparency, which are critical to future discoveries and for guiding decisions across science, engineering, public health, and medicine.

Cluster scholar backgrounds may include:

- Integration of domain knowledge and data-driven methods
- Expertise in working/researching across disciplines including computer science, engineering, natural sciences, public health, and medicine
- Success in building AI systems that can reason and infer from heterogeneous data streams with the goals of decision making and prediction

Team members in this cluster will work within JHU's unique collaborative culture and receive additional administrative and financial support to ensure their interdisciplinary research is truly impactful and world-changing.

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JOHNS HOPKINS UNIVERSITY

The Bloomberg Distinguished Professorships (BDP) Cluster Initiative at Johns Hopkins University is part of an ambitious investment in inter-disciplinary research to bridge academic disciplines and open novel fields of inquiry to tackle society's most complex problems. Recruiting 100 researchers and scholars, the BDP program was established in 2013 and expanded in 2021 with gifts from Michael R. Bloomberg, JHU alumnus and 108th mayor of New York City. Many of these positions are dedicated to the Cluster Initiative to recruit scholars and innovators who will draw on each other's unique strengths to make meaningful impact and generate solutions.

WANT TO LEARN MORE?

We have more detail on this cluster available on our website. You can also sign up for updates on future positions, news, and more.

research.jhu.edu/clusters
twitter.com/JHU_BDPs
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USE THE QR CODE TO VISIT OUR WEBSITE FOR MORE INFORMATION