

NEWS RELEASE

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CORNELL UNIVERSITY GRADUATE RECEIVES ACM DOCTORAL DISSERTATION AWARD

Manish Raghavan Cited for Significant Contributions to the Understanding of Algorithmic Decision Making and its Societal Implications

New York, NY, June 2, 2022 – ACM, the Association for Computing Machinery, today announced that Manish Raghavan receives the 2021 ACM Doctoral Dissertation Award for his dissertation "The Societal Impacts of Algorithmic Decision-Making." Raghavan's dissertation makes significant contributions to the understanding of algorithmic decision making and its societal implications, including foundational results on issues of algorithmic bias and fairness.

Algorithmic fairness is an area within AI that has generated a great deal of public and media interest. Despite being at a very early stage of his career, Raghavan has been one of the leading figures shaping the direction and focus of this line of research.

Raghavan is a Postdoctoral Fellow at the Harvard Center for Research on Computation and Society. His primary interests lie in the application of computational techniques to domains of social concern, including algorithmic fairness and behavioral economics, with a particular focus on the use of algorithmic tools in the hiring pipeline. Raghavan received a BS degree in Electrical Engineering and Computer Science from the University of California, Berkeley, and MS and PhD degrees in Computer Science from Cornell University.

Honorable Mentions

Honorable Mentions for the 2021 ACM Doctoral Dissertation Award go to **Dimitris Tsipras** of Stanford University, **Pratul Srinivasan** of Google Research and **Benjamin Mildenhall** of Google Research.

Dimitris Tsipras' dissertation, "Learning Through the Lens of Robustness," was recognized for foundational contributions to the study of adversarially robust machine learning (ML) and building effective tools for training reliable machine learning models. Tsipras made several pathbreaking contributions to one of the biggest challenges in ML today: making ML truly ready for real-world deployment.

Tsipras is a Postdoctoral Scholar at Stanford University. His research is focused on understanding and improving the reliability of machine learning systems when faced with the real world. Tsipras received a Diploma in Electrical and Computer Engineering from the National Technical University of Athens, as well as SM and PhD degrees in computer science from the Massachusetts Institute of Technology (MIT).

Pratul Srinivasan and Benjamin Mildenhall are jointly awarded an Honorable Mention for their coinvention of the Neural Radiance Field (NeRF) representation, associated algorithms and theory, and
their successful application to the view synthesis problem. Srinivasan's dissertation, "Scene
Representations for View Synthesis with Deep Learning," and Mildenhall's dissertation, "Neural Scene
Representations for View Synthesis," addressed a long-standing open problem in computer vision and
computer graphics. That problem, called "view synthesis" in vision and "unstructured light field
rendering" in graphics, involves taking just a handful of photographs of a scene and predicting new
images from any intermediate viewpoint. NeRF has already inspired a remarkable volume of follow-on
research, and the associated publications have received some of the fastest rates of citation in computer
graphics literature - hundreds in the first year of post-publication.

Srinivasan is a Research Scientist at Google Research, where he focuses on problems at the intersection of computer vision, computer graphics, and machine learning. He received a BSE degree in Biomedical Engineering and BA in Computer Science from Duke University and a PhD in Computer Science from the University of California, Berkeley.

Mildenhall is a Research Scientist at Google Research, where he works on problems in computer vision and graphics. He received a BS degree in Computer Science and Mathematics from Stanford University and a PhD in Computer Science from the University of California, Berkeley.

About the ACM Doctoral Dissertation Award

Presented annually to the author(s) of the best doctoral dissertation(s) in computer science and engineering. The <u>Doctoral Dissertation Award</u> is accompanied by a prize of \$20,000, and the Honorable Mention Award is accompanied by a prize totaling \$10,000. Winning dissertations will be published in the ACM Digital Library as part of the ACM Books Series.

About ACM

ACM, the Association for Computing Machinery is the world's largest educational and scientific computing society, uniting computing educators, researchers and professionals to inspire dialogue, share resources and address the field's challenges. ACM strengthens the computing profession's collective voice through strong leadership, promotion of the highest standards, and recognition of technical excellence. ACM supports the professional growth of its members by providing opportunities for life-long learning, career development, and professional networking.

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