Designing Equitable Algorithms

Machine-learning algorithms are now used to automate routine tasks and to guide high-stakes decisions. But, if not carefully designed, they can exacerbate inequities.

Dr. Goel will start his lecture by showing that several popular automated speech recognition tools exhibit substantial racial disparities, likely due to a lack of diversity in the training data. He will describe recent attempts to formalize fairness mathematically and will argue that some of the most common definitions, when used as a design principle, can, perversely, harm the very groups they were created to protect. Dr. Goel will conclude by describing a general, consequentialist framework for designing equitable algorithms that aims to mitigate the limitations of the dominant approaches to building fair machine-learning systems. He'll illustrate these points with examples from healthcare and criminal justice.

DISTINGUISHED GUEST LECTURER

Sharad Goel, Ph.D.

PROFESSOR OF PUBLIC POLICY, HARVARD KENNEDY SCHOOL

Sharad Goel, Ph.D., is a Professor of Public Policy at Harvard Kennedy School. He looks at public policy through the lens of computer science, bringing a computational perspective to a diverse range of contemporary social and political issues, including criminal justice reform, democratic governance, and the equitable design of algorithms. Prior to joining Harvard, Dr. Goel was on the faculty at Stanford University, with appointments in management science & engineering, computer science, sociology, and the law school. He holds an undergraduate degree in mathematics from the University of Chicago, as well as a master's degree in computer science and a doctorate in applied mathematics from Cornell University.

Free & Open to All
Friday, October 27, 2023 | 10:40 a.m.
Touchdown Terrace, Ben Hill Griffin Stadium
Reception to follow