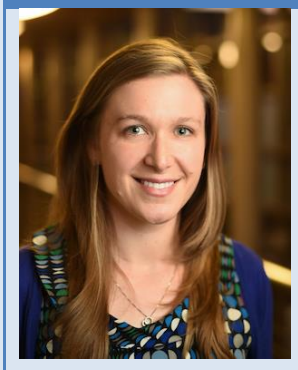
TOPIC	Understanding and Mitigating Bias in Visual Recognition
ORGANIZERS	Student Leadership Council and Faculty of ACIT Institute
AREA	Understanding and Mitigating Bias in Visual Recognition
SPEAKER	Judy Hoffman
DATE	Friday December 11, 2020
TIME	3:00 – 4:00 P.M. (EST)
VENUE	Webex https://ncatedu.webex.com/ncatedu/j.php?MTID=mb428abd5fbcf62b44f916584701a2b53
FEES	No Charge

SYNOPSIS

As visual recognition models are developed across diverse applications, we need the ability to reliably deploy our systems in a variety of environments. At the same time, visual models tend to be trained and evaluated on a static set of curated and annotated data which only represents a subset of the world. In this talk, I will discuss the spectrum of dataset and model bias ranging from inadvertent visual changes to adversarially manipulated images. I will then cover techniques for bias mitigation, including domain adversarial learning, which facilitates transfer of information between different visual environments and across different semantic tasks thereby enabling recognition models to generalize to previously unseen worlds, such as from simulated to real-world driving imagery. Finally, I'll touch on the pervasiveness of dataset bias and how this bias can adversely affect underrepresented subpopulations.

ABOUT THE SPEAKER



Dr. Judy Hoffman is an Assistant Professor in the School of Interactive Computing at Georgia Tech and a member of the Machine Learning Center. Her research lies at the intersection of computer vision and machine learning with specialization in domain adaptation, transfer learning, adversarial robustness, and algorithmic fairness. She has been awarded the NVIDIA female leader in computer vision award in 2020, AIMiner top 100 most influential scholars in Machine Learning (2020), MIT EECS Rising Star in 2015, and is a recipient of the NSF Graduate Fellowship. In addition to her research, she co-founded and continues to advise for Women in Computer Vision, an organization which provides mentorship and travel support for early-career women in the computer vision community. Prior to joining Georgia Tech, she was a Research Scientist at Facebook AI Research. She received her PhD in Electrical Engineering and Computer Science from UC Berkeley in 2016 after which she completed Postdocs at Stanford University (2017) and UC Berkeley (2018).