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Emma Brunskill Carnegie Mellon University

Tech Talk: "Automated Decision Making Under Uncertainty for Societal Benefit"



Wednesday, June 15, 2016
10-11am
CIT 368

The potential societal benefit of autonomous agents is enormous: consider lifelong tutoring systems that help speed learning and provide retraining and career advice, or health care decision support agents. Realizing such systems requires fundamental advances in our understanding of how to automatically make good decisions under uncertainty. In this talk, I will discuss our progress in several key challenges including how much experience is needed to learn to make good decisions (sample efficient reinforcement learning). I will also describe some of the educational applications that have inspired, informed, and benefited from our technical discoveries.

Emma Brunskill is an assistant professor in the computer science department at Carnegie Mellon University. She is also affiliated with the machine learning department at CMU. She works on reinforcement learning, focusing on applications that involve artificial agents interacting with people, such as intelligent tutoring systems. She is a Rhodes Scholar, Microsoft Faculty Fellow and NSF CAREER award recipient, and her work has received best paper nominations in Education Data Mining (2012, 2013) and CHI (2014).