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TECH TALK:
"Situated Language Understanding with Visual Observations"

Thursday, November 16, 2017
1:00-2:20pm
CIT 316

Abstract: An agent following instructions requires a robust understanding of language and its environment. In this talk, I will propose a model for mapping instructions to actions that jointly reasons about natural language and raw visual input obtained from a camera sensor. Unlike existing approaches that decompose the problem to separately built models, our approach does not require intermediate representations, planning procedures, or training different models for visual and language reasoning. To train, we design a reinforcement learning algorithm to address key problems in learning for natural language understanding, including learning in a few-sample regime and exploiting annotated training demonstrations. Our approach significantly outperforms supervised learning and common reinforcement learning methods.

Yoav Artzi is an Assistant Professor in the Department of Computer Science and Cornell Tech at Cornell University. His research focuses on learning expressive models for natural language understanding, most recently in situated interactive scenarios. He received best paper awards in EMNLP 2015 and ACL 2017 and a Google faculty award. Yoav holds a B.Sc. summa cum laude from Tel Aviv University and a Ph.D. from the University of Washington.

Host: Stefanie Tellex/HCRI