HUMANITY CENTERED
ROBOTICS INITIATIVE
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Humanity Centered Robotics Initiative Talk

Thomas Howard, University of Rochester

Wednesday, November 20 at 2pm in CIT 477

"Learning Adaptive Models for Human-Robot Teaming"

Abstract: The efficiency and optimality of human-robot teams is often dictated by the fidelity and complexity of models for how a robot can interact with its environment, interpret the meaning of instructions, and/or exchange information with human partners. It is common for researchers to engineer and/or learn these models a priori to achieve particular levels of performance for specific tasks in a restricted set of environments and initial conditions. As we progress towards more intelligent systems that perform a wider range of objectives in a greater variety of domains, the models for how robots make decisions and interact with humans must adapt to achieve, if not exceed, such levels of performance. In this talk I will discuss progress towards model adaptation for robot intelligence in the context of human-robot teaming, including recent efforts in natural language understanding for human-robot interaction and robot motion planning.

Thomas Howard is an assistant professor in the Department of Electrical and Computer Engineering at the University of Rochester. He also holds secondary appointments in the Department of Biomedical Engineering and Department of Computer Science, is an affiliate of the Goergen Institute of Data Science, and directs the University of Rochester's Robotics and Artificial Intelligence Laboratory. Previously he held appointments as a research scientist and a postdoctoral associate at MIT's Computer Science and Artificial Intelligence Laboratory in the Robust Robotics Group, a research technologist at the Jet Propulsion Laboratory in the Robotic Software Systems Group, and a lecturer in mechanical engineering at Caltech and was a Goergen Institute for Data Science Center of Excellence Distinguished Researcher.

Host: Stefanie Tellex/HCRI

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