Queen's School of Computing

Creating Complex Agents for Uncertain Environments

Autonomous systems are pervasive, and their effective creation and maintenance will only become more critical as Artificial Intelligence makes its way into every day life. I will discuss ways to create interpretable agents that understand the dynamics of a complex and uncertain environment through the use of (1) instruction; (2) learning; and (3) interaction. This presentation will cover some fundamental insights for creating robust and efficient autonomous agents, and demonstrate a broad range of applications in decision making under uncertainty. A deeper look into the field of dialogue agent design also will illustrate the enormous potential of combining complementary sub-fields of AI.

January 22nd 2019

11:30am-12:30pm

BioSciences 1102

Light Refreshments

Christian Muise

Christian is a Research Staff Member at the MIT-IBM Watson AI Lab, where he researches data-driven techniques for inducing behavioral insight and leads a project devising next generation dialogue agents. Prior to this he was a Research Fellow with the MERS group at MIT's Computer Science and Artificial Intelligence Laboratory studying decision making under uncertainty, and prior to his time at MIT, Christian was a postdoctoral fellow at the University of Melbourne's Agentlab studying techniques for multi-agent planning and human-agent collaboration. Christian completed his PhD at the University of Toronto with the Knowledge Representation and Reasoning Group under the supervision of Professors Sheila McIlraith and J. Christopher Beck in the area of Automated Planning.