

Alborz Geramifard Amazon

Tech Talk: "Spoken Language Understanding for Amazon Echo"



Monday, October 26, 2015
1:00 – 2:00 pm
CIT Building, Room 368

Echo is high performance fully voice controlled wireless speaker created by Amazon that is designed for the home. It is very convenient, always plugged in and ready to use. The technology behind Echo lives on a device as well as in the cloud and represents some of the best in Natural Language Processing (NLP) technologies today. Echo is extensible and supports a broad range of functionalities out-of-the-box, such as music playing, control of select home appliances, timers and alarms, wikipedia, to-do and shopping lists, sports and weather information, generic question answering and more. It features high performance keyword spotting, automatic speech recognition, natural language understanding, question answering and text-to-speech. This talk provides an overview of speech and natural language processing activities at Amazon around Echo and describes some of the core technologies and research challenges our teams are facing.

Alborz Geramifard is currently a research scientist at Amazon working on the natural language understanding of Echo. Before joining Amazon, he was a postdoctoral associate at MIT's Laboratory for Information and Decision Systems. Alborz received his PhD from MIT working on representation learning and safe exploration in large scale sensitive sequential decision-making problems in 2012. He finished his MSc at University of Alberta in 2008, where he worked on data efficient online reinforcement learning techniques. His research interests lie at machine learning with the focus on reinforcement learning, natural language understanding, planning, and brain and cognitive sciences. Alborz was the recipient of the NSERC postgraduate scholarships 2010-2012 program.