ISTeC
The Information Science and Technology Center

Colorado State University

Distinguished Lectures
Spring 2018

Colorado State University's Information Science and Technology Center (ISTeC) ***presents two lectures by***

Dr. Monica Lam

Professor
Computer Science Department
Stanford University

ISTeC Distinguished Lecture

In conjunction with the Department of Computer Science and Department of Electrical and Computer Engineering Seminar Series

Keeping the Internet Open with an Open-Source Virtual Assistant

Monday, March 19, 2018
Reception with refreshments: 10:30 a.m.
Lecture: 11:00 a.m.-12:00 noon
Morgan Library Event Hall

Department of Computer Science and Department of Electrical and Computer Engineering Seminar Series Sponsored by ISTeC

Almond: A User-Programmable Virtual Assistant That Protects Privacy

Tuesday, March 20, 2018
Lecture: 12:30-1:45 p.m.
Clark A 103

Abstracts

Keeping the Internet Open with an Open-Source Virtual Assistant

Virtual assistants, such as Alexa, Siri, and Google Home, are emerging as the super app that intermediates between users and their IoT devices and online services. As an intermediary, the virtual assistant sees all our personal data and has control over the services and vendors we use. A monopolistic virtual assistant would pose a great threat to personal privacy as well as open competition and innovation.

This talk describes why the world needs an open-source virtual assistant to keep the internet open and to protect privacy. Our solution is the Stanford Almond Virtual Assistant, a research project to create the world's best open-source virtual assistant technology that protects privacy via advanced research and crowd sourcing.

Almond: A User-Programmable Virtual Assistant that Protects Privacy

Virtual assistants are revolutionizing how we interact with machines by providing a uniform, highly personalized, language-based interface to digital services. This talk presents Almond, an open-source, crowd-sourced research project to explore the potential of virtual assistants. Can we program the virtual assistant to perform complex tasks in natural language? Can we protect privacy by running a virtual assistant on our own personal devices?

Can we control access by specifying, in natural language, who, what, when, where, and how our data are to be shared? Can we combine the advantages of language-based interfaces with graphical user interfaces? Our preliminary solutions to all these questions are based on prior work in multiple areas: machine learning, language design, distributed systems, and human-computer interfaces.

Speaker Biography

Dr. Monica Lam has been a Professor of Computer Science at Stanford University since 1988. She is the Faculty Director of the Stanford MobiSocial Computing Laboratory. Her research spans the areas of architecture, compilers, distributed systems, machine learning, and human-computer interfaces. Her current research is to develop an open end-user programmable virtual assistant platform that protects users' privacy. She received a PhD in Computer Science from Carnegie Mellon University in 1987. Prof. Lam is an ACM Fellow, and a co-author of the "*dragon book*", the most popular textbook in compilers.

To arrange a meeting with the speaker, please contact Prof. Sanjay Rajopadhye, Sanjay.Rajopadhye@ColoState.EDU.

Upcoming Distinguished Lectures

March 26
Towards a Software-defined Infrastructure for Smart IoT Systems
11:00 a.m.-12:00 noon

Morgan Library Event Hall
Dr. Prashant Shenoy

April 2
Copyrights and Copyfights: Intellectual Property and Ethics in Digital Spaces
11:00 a.m.-12:00 noon

Morgan Library Event Hall
Dr. Danielle Nicole Devoss

April 23
Networks of 'Things'
11:00 a.m.-12:00 noon

Morgan Library Event Hall
Dr. Jeffrey M. Voas

ISTeC (Information Science and Technology Center) is a university-wide organization for promoting, facilitating, and enhancing CSU's research, education, and outreach activities pertaining to the design and innovative application of computer, communication, and information systems. For more information please see ISTeC.ColoState.edu.