

# The School of Electrical and Computer Engineering DISTINGUISHED SEMINAR SERIES 2017

The Distinguished Seminar Series of the School of Electrical and Computer Engineering (ECE) presents the work of internationally recognized researchers. This seminar series is intended to provide an open platform for the faculty and students, to have a dialog with leading researchers in various fields of ECE, and to build-up a dynamic and vibrant culture of research and academic exchange in the ECE department. All seminars are free and open to the public.



## Making a Difference with Data

2 - 3 p.m. Monday, October 2 | ATRC 102

**Christopher White** - Principal Researcher, Artificial Intelligence and Research, Microsoft

Chris White is a Principal Researcher and Partner at Microsoft working on special projects. His team is currently developing software for data analysis, focusing on the intersection of artificial intelligence and business intelligence, including analytics tools from structured numerical analysis to unstructured data. They recently helped Microsoft become the visionary market leader for business intelligence. Their work has also been applied to fighting digital crime and worldwide tech scams, including the Federal Trade Commission's Operation Tech Trap.

Before joining Microsoft, Chris was a Program Manager at the Defense Advanced Research Projects Agency (DARPA), where he created and managed DARPA's leading programs XDATA, Memex, and the Open Catalog as part of President Obama's Big Data Initiative. His work has been applied to countering human trafficking, financial fraud, and terrorism. Chris also served DARPA as the Agency's country lead in Afghanistan. In recognition of this work, he received the Presidential Award for Extraordinary Efforts to Combat Trafficking in Persons, the Secretary of Defense Medal for Outstanding Public Service, a Department of Treasury Intelligence and Analysis medallion, and the Department of Defense Joint Meritorious Unit Award.

Prior to DARPA, Chris was a fellow at Harvard's School of Engineering and Applied Sciences. He earned a PhD in electrical engineering from Johns Hopkins University, where his research focused on machine learning, statistical methods for large data sets, and human language technology.

## Seminar Abstract

What do sex-trafficking, jihad finance, and propaganda have in common? They happen online, in the darkness of usernames and vastness of big data. Technology can help us navigate information. Because a single act feels tragic, and a million tragic acts become statistics, we also need compelling story-telling that combines data and narrative. We will explore how the democratization of artificial intelligence and user interfaces for interacting with data can construct meaning in a world of information overload. In particular, we will describe how automated methods can infer meaningful representations from unstructured data, overcoming difficulties of data volume, noise and lack of structure, unknown data distributions at multiple scales, and detecting key elements of a data-generating process.

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**Refreshments will be provided after each Seminar**



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