Machine Learning on Big Data for Personalized Internet Advertising

Speaker: Dr. Michael Recce
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Abstract:
Advertisers have long sought more effective ways to reach their audience to show the right ad to the right person at the right time. Huge volumes of internet activity data, advances in machine learning methods, new hardware and software for large scale distributed computing, and developments in real-time decisioning have made this finally possible. Increasingly the particular advertisement that is seen on a web page is decided in an auction that takes place in a fraction of a second, while the page is loading. In this presentation I will discuss the methods that are being used in the internet industry to meet the challenges in personalizing advertising. This process involves multiple machine learning methods to evaluate of about 15 billion individual daily media events and leveraging this data to make precise bids in almost 200,000 auctions every second.

Bio: Dr. Michael Recce is an Associate Professor in Information Systems Department at NJIT. Early in his career, he was a product engineering manager at Intel Corporation, where he led the development of new memory products for the company. Other projects he has worked on include the design of a control system for a space-based robot for Daimler-Benz, which was developed to run scientific and engineering experiments in the space station. He holds six patents, including one for research of a behavioral biometric called dynamic grip recognition, and was a recipient of the Innovator Award at the New Jersey Innovators Hall of Fame in 2005. In recent years, he has worked extensively with financial institutions devising improved methods for detecting unusual activity in financial transaction data. He received his doctorate from University College, London.