Seminar Announcement

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“Scalable Audience Targeted Models for Social Brand Online Advertising”

Thursday, January 29, 2015
1:30-3:00 PM
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Abstract:
Social media has become a popular platform that connects people who share and communicate information, in particular personal opinions. For example, Facebook has 1B+ users worldwide, actively engaged in providing opinions about products and services. Understanding and analyzing this user-generated data can help brands make strategic decisions, for example, finding targeted users for online advertising, but requires scalable algorithms and software to deal with big data. The increasing diversities of data types, networks, and the demands for more complex data analytics require novel algorithms and tools. In this talk, I present three different methods to find target audiences based on user historical activities on social media platforms. (1) Network-based method: build and analyze implicit brand-brand networks to select potential targeting users for a focal brand; (2) Learning-based method: formulate a binary classification problem using regression-based model to predict user’s interest in the focal brand; (3) Matrix completion-based method: predict user's preference on each brand using matrix completion method. Since the datasets and networks are large, most algorithms are implemented using MapReduce under Hadoop. Experiments conducted with Facebook data show that our approaches provide significant performance improvements in audience identification.