Bioinformatics PowerTalk Series

Welcomes

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“From chaos, DRAMA: Data-driven Research for Advanced Modeling and Analysis ”

Abstract:
Over the past 20 years or so, the world has seen an explosion of data. The Web has not only shrunk the world, but also enabled the production of incredibly detailed data at a scale never before imagined. While in the past, a controlled experiment, small scale survey, or compilation of high level statistics allowed us to gain insights into the problems we explored, the Web has brought about a host of new challenges for researchers hoping to gain an understanding of modern socio-technical behavior. First, even discovering appropriate data sources is not a straight forward task. While there are obvious sources like Twitter and Facebook, there are literally millions of other Web communities that might provide more relevant data to the problem at hand. Next, although the Web enables us to collect highly detailed digital information, there are issues of availability and ephemerality: simply put, researchers have no control over what data a 3rd party platform collects and exposes ,and more specifically, no control over how long that data will remain available. Finally, the massive scale and multiple formats data are available in requires creative execution of analysis. In this talk, I will present the research framework that my colleagues and I have developed over the years, providing an overview of how we approach and overcome the challenges highlighted above. Using concrete examples from my research, I will delve into some unique datasets and analysis we have performed ranging from understanding how cheating behavior spreads through a social network like a contagion, to understanding online hate speech and harassment campaigns, to modeling the influence that Web communities have on the spread of fake news. While our approach is not universal, the hope is that there are relevant take aways that can help you rethink how to go about gaining an empirical understanding of the modern connected world.

Refreshments will be provided

Friday, 9/28/2018 at 10:15am
Shelby Biomedical Research Building, Room 105
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