
SYED EJAZ AHMED, Brock university

Implicit Bias in Big Data Analytics

Nowadays a large amount of data is available, and the need for novel statistical strategies to analyze such data sets is pressing. In this talk, my emphasis is on the development of statistical and computational strategies for a sparse regression model in the presence of mixed signals using machine and statistical learnings. The existing methods have often ignored contributions from weak signals and are subject unignorably bias. The amount of such information in a single predictor might be modest but helps in prediction accuracy in a meaningful way. The search for such signals, sometimes called networks or pathways, is for instance an important topic for those working on personalized medicine. We propose and implement a new “post selection shrinkage estimation/prediction strategy” that takes into account the joint impact of both strong and weak signals to improve the prediction accuracy, and opens pathways for further research in such scenarios.