Interface of Statistics and Computing in Data Science

ABSTRACT: The role of computation has been central to statistics for decades, and statistics and computing become ever more important in the age of data science. This talk will present the interface of statistics and computing through my statistics work on computational algorithms and computing work on statistics and machine learning. Specifically I will discuss (i) annealing based quantum computing for deep learning; (ii) statistical analysis of gradient descent (accelerated gradient descent and stochastic gradient descent algorithms) in the context of stochastic optimization arising in statistics and machine learning where objective functions are estimated from available data (a training sample or a statistical sample).

Bio:

Friday, October 25, 2019
11:00AM-12:00PM
Stratton Hall 203