Helen Zhang
Title: Statistics and Machine Learning

Abstract: The lecture will briefly review statistics, machine learning, and the critical role of statistics in machine learning. Some basic terms and learning principles, including big data, supervised learning, dimension reduction, model complexity, curse-of-dimensionality, and bias-variance trade-off will be discussed. Modern machine learning techniques such as lasso, random forests, boosting algorithms, network analysis, recommender systems, and deep neural networks, along with their applications, will be introduced as well.