

09:00-12:00, Dec. 13th, 2015
Keynote Speech (3)

A dimension reduction perspective on machine learning and multivariate statistical analysis for deep data analytics

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Abstract

As a fundamental training component in the curriculum of the emerging data science discipline, machine learning (ML) in computer science and multivariate analysis (MA) in statistics overlap substantially. In this talk, I will discuss how to exploit the commonality and uniqueness between MA and ML for deep data analytics which requires a thoughtful planning of layers and layers of analyses to maximize the outcome. Technically, I will present some salient and subtle aspects of dimension reduction involved in multiple regression, factor analysis, support vector machine and neural network.