
STATISTICS SEMINAR

UW-Department of Statistics

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Abstract: This talk will discuss statistical and computation requirements---and how they interact---for three learning setups. In the first part, we inspect the role of memory in learning. We study how the total memory available to a learning algorithm affects the amount of data needed for learning (or optimization), beginning by considering the fundamental problem of linear regression. Next, we examine the role of long-term memory vs. short-term memory for the task of predicting the next observation in a sequence given the past observations. Finally, we explore the statistical requirements for the task of manufacturing more data---namely how to generate a larger set of samples from an unknown distribution. Can "amplifying" a dataset be easier than learning?

TITLE:

**Modern Perspectives
on Classical Learning
Problems: Role of
Memory and Data
Amplification**

Speaker:

Vastal Sharan

PhD Student
Stanford University

Time & Place:

Monday, February
24, 2020 **4pm**,
Room 133 SMI

Cookies & Coffee @
3:30, Rm 1210 MSC

