CONFLUENCE

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TOWARD THE JET AGE OF MACHINE LEARNING

AMEET TALWALKAR, CMU MACHINE LEARNING

Thursday, Feb 13, 2020
7:00 PM to 8:30 PM
CMU, Gates-Hillman Center, Rashid Auditorium
GHC 4401

Free to attend!

ABSTRACT

Machine learning today bears resemblance to the field of aviation at the turn of the 20th century. The Wright Brothers' pioneering flights in 1903 led to widespread recognition that powered flight would revolutionize society. However, it took half a century of aeronautical engineering advances for the 'Jet Age' (i.e., commercial aviation) to finally became a reality. Similarly, machine learning (ML) is currently experiencing a renaissance and there is broad recognition about its potential for widespread societal impact. However, only a handful of large organizations today have the resources to develop ML-powered applications, both due to the computational demands and high-level of required expertise. Moreover, leading ML models are complex and opaque, and their lack of interpretability fundamentally limits our ability to understand or trust their behavior. As a consequence, we are just scratching the surface of the potential for ML-powered technology. In this talk, I will describe my lab's ongoing work on core ML challenges related to scalability, automation, and interpretability to help democratize ML and move us toward the 'Jet Age' of machine learning.

Ameet Talwalkar is an assistant professor in the Machine Learning Department at Carnegie Mellon University. He is also co-founder and Chief Scientist at Determined AI. His primary interest is in the field of statistical machine learning.