Carnegie Mellon University
Materials Science & Engineering

presents

Machine Learning for Materials Discovery

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ABSTRACT:
Machine learning and artificial intelligence applications in science and engineering have received rapidly increasing hype over the last several years, with Citrine on the front lines of adoption of ML and AI in materials development. In this talk, I will discuss opportunities, open challenges, and recent work in materials informatics drawn from experiences on a wide range of commercial and noncommercial projects, including:
* data reuse with transfer learning,
* design of experiments with active learning,
* domain knowledge integration with graphical modeling, and
* project portfolio evaluation with design space quality metrics.).

BIOGRAPHY:
Max Hutchinson is a scientific software engineer at Citrine Informatics, where he develops and operationalizes statistics and machine learning methods for materials development. He is particularly interested in the applications of domain knowledge and predictive uncertainty in machine learning to address the scarcity of high quality data common in materials science and engineering. Max received a B.S. from CMU (working with Michael Widom) and Ph.D. from the University of Chicago, both in physics.

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