It is our goal to inspire great minds to advance AI-Powered research and industry

**Zoom Link:** [https://maine.zoom.us/my/usm.datascience](https://maine.zoom.us/my/usm.datascience)

**February 4th**
4-5pm EDT

**Reza Zadeh, PhD**
Founder & CEO, Matroid | Adjunct Professor, Stanford University

**March 4th**
4-5pm EDT

**Luis Carvalho, PhD**
Associate Professor, Department of Mathematics & Statistics
Boston University

**April 1st**
4-5pm EDT

**Mark Wagy, PhD & Ryan Taylor, MBA**
Senior Director, Data Analytics and Research
Senior Vice President of Data Products and Analytics
WEX
Talk: Turning Machine Learning Research into Products for Industry

Abstract: We present three challenges on the way to building cutting-edge ML products, with a focus on computer vision, offering examples, recommendations, and lessons learned. 1) Since ML is all about approximation, it can be difficult to assess when a research result is good enough for the industry. 2) Building systems that scale ML models in production is a challenge on its own. Although a model may work in the lab, scaling it to millions of users may be impossible without further research. 3) Building good user interfaces for ML products is crucial. Since ML researchers often don’t have a background in user-focused design, they tend to underestimate the importance of good UX design.

Bio: Reza Zadeh is an American-Canadian-Iranian computer scientist and technology executive working on machine learning. He is an adjunct professor at Stanford University and CEO of Matroid. He has served on the technical advisory boards of Databricks and Microsoft. His awards include a KDD Best Paper Award and the Gene Golub Outstanding Thesis Award at Stanford University.

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Talk: Modeling Residential Burglaries in Boston: a Data Science Case Study

Abstract: We present a new methodology for modeling occurrences of events in a network and use residential burglaries in Boston as a case study. At the core of our model is a functional network regression on node attributes using a Laplacian operator based on edge similarities as regularizer. We show how usual regularization penalties can be cast as prior distributions on regression coefficients under a Bayesian setup, and propose a computationally efficient EM fitting procedure. For the case study we discuss how publicly available data from the city of Boston can be cleaned, visualized, and explored to give valuable insights into model building, calibration, and presentation and interpretation of results. This is joint work with Liz Upton.

Bio: Luis Carvalho is associate professor in the Department of Mathematics and Statistics at Boston University and director of the MSc in Statistical Practice program. Prior to joining BU ten years ago, he did his PhD in Applied Mathematics at Brown University investigating Bayesian approaches to high dimensional discrete inference. His main research interests are Bayesian and computational statistics and data science applications in many fields such as engineering, genetics, and social sciences.

Zoom Link: https://maine.zoom.us/my/usm.datascience
Talk: Applying Data Analytics in the Corporate Context

Abstract:
Mark Wagy and Ryan Taylor will share their data and analytics transformation journey in applying analytics in the corporate context.

Bio:
Mark Wagy comes from a mixture of academia and industry, working at various companies and universities in the data and Machine Learning realm including Medtronic, LexisNexis, MIT, Dartmouth and now WEX in Portland, Maine. He’s also spent a lot of time in school. He currently is the director of Data Science at WEX where he leads the core data and Artificial Intelligence groups at the company.

Ryan Taylor has over 20 years of technology, payment and banking experience with a proven track record of building technology that solves complex business challenges. As Senior Vice President of Data Products & Analytics for WEX, Ryan manages a global team of technology, data, and product professionals that design, build and support products and analytics across WEX. Prior to joining WEX, Ryan built and led large-scale, business-focused technology teams at Capital One that supported the Treasury Management and Capital Markets businesses.

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