Abstract:

While the time series beloved by venture capitalists go up and to the right, and time series taught by statisticians in intro classes exhibit stationarity, many other time series, including those in freight, exhibit multi-season cyclicality or periodicity. The business cycle, agricultural cycles, holidays, and more all influence freight time series. This talk will delve into time series that show layers of cyclicality and highlight different methods for attempting to understand the complex system of freight logistics in the US. I’ll talk about networks, dynamical systems, and other mathematical tools that can be applied. I will also focus heavily on the business trade-offs inherent in modeling choices, as this is not a theoretical exercise but a practical one. If you’ve wondered, “what does mathematics in corporate life look like?” this talk aims to give a small taste!