Probabilistic Forecasting with Pyro

Pyro is an open source library for Deep Probabilistic Programming, enabling Bayesian modeling and inference in the Python and PyTorch ecosystem. In this talk we will introduce probabilistic programming approaches to forecasting univariate and multivariate time series. We will show how to generalize classical forecasting methods by: hierarchically coupling multiple time series, using neural networks in models and inference, and parallelizing to leverage modern hardware.