Mathematical Sciences Fall 2024 Colloquium Series

Dr. Morgan Wang
University of Central Florida

Friday, September 6 at 3:00pm
Bell Hall 130 and online via Zoom
Scan the QR-code to access the link

Time Series Analysis – Statistical Learning or Machine Learning

Abstract

Time series forecasting holds a pivotal role in statistical learning and machine learning (ML), with wide-ranging applications in sectors like supply chain and financial industries. Precision in forecasting is crucial for optimizing resource allocation, refining decision-making processes, and tackling dynamic challenges posed by evolving data trends over time. Recent advancements in time series forecasting, particularly with Automatic Machine Learning (AutoML), have proven highly effective for both short-term and long-term univariate time series forecasting. This efficacy extends even further in the case of multivariate time series forecasting. This presentation will delve into these advancements, showcasing the enhanced accuracy compared to traditional statistical learning approaches like Autoregressive Integrated Moving Average (ARIMA) or Vector Autoregression (VAR). While AutoML demonstrates its superiority, it's essential to note that traditional statistical approaches remain the method of choice in certain applications. This presentation will elucidate how to judiciously select learning methods based on the specific requirements of different applications, providing valuable insights for informed decision-making in the field of time series forecasting.

Hosted by: Dr. Xiaogang Su
For further information, please contact Dr. Emil Schwab, eschwab@utep.edu

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