

POSTGRADUATE SEMINAR SERIES

Research Findings Seminar

Topic Title : Machine Learning Techniques for Time Series Data Imputation and Enhancement

Presenter : Ms. FAN Zeyi

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Abstract : In today's digital era, time series data is ubiquitous in a multitude of fields. However, the prevalence of missing data values poses a significant hurdle to the accuracy and reliability of subsequent data analysis. This research centers around the utilization of machine learning methodologies, with particular emphasis on Transformer-based models, to tackle the crucial tasks of missing value imputation.

Our state-of-the-art Transformer-based model is engineered to integrate local temporal information. To validate its efficacy, we subjected the trained model to a battery of tests, spanning both simulated and real-world missing value imputation tasks.

Furthermore, we have broadened our research scope by unlocking valuable insights about user behavior shifting through time series data. By delving deep into users' long-term and short-term preferences, our recommendation system can provide more accurate and timely suggestions, enhancing user satisfaction and engagement. This dual approach allows us to adapt to the dynamic nature of user behavior, ensuring that our recommendations remain relevant and personalized.

Date : 28 April 2025, Monday

Time : 9:30 – 11:30

Venue : SEK106, 1/F, Simon & Eleanor Kwok Building

Language : English



*** All are Welcome ***