LLMs for Time Series Analysis

Background

Challenges, Our Motivations, Preliminaries of LLMs, *etc*.

Methods & Applications

Taxonomy of Time Series LLMs
1. **Direct Querying LLMs**
2. **Fine-tuning LLMs**
3. **Feature Enhancement Using LLMs (Integration)**

Component Design in 2
2.1 Time Series Tokenization
2.2 Time Series Prompt
2.3 Fine-tune Strategy

Domains & Tasks
1. **Universal and Domain-specific (Finance, Healthcare, Traffic, *etc*.)**
2. **Forecasting, Classification, Imputation, Event Prediction, *etc*.**

Future Research Opportunities

Tailoring for Time Series, Interpretability, Multi-modality, Generalization, Scaling Laws, Decision Making, Bias & Safety