**Friday Mar 21st - with Liang (mentor)**

**Attendance: Zhiqi Ma, Yangruonan Lin, Ruobing Zhang**

**Note: Due to spring break, so not mandatory meeting this week. No meeting next week due to Liang’s vacation schedule.**

**This Week:**

* Zhiqi collected and processed all datasets to be used and did all experiments for all 3 tasks, each with 100 time series datasets extracted from PdM & DARTS datasets, and organized the evaluation results for later comparison. Currently only did zero-shot forecasting, not yet fine-tuning.
* Bingqian experimented using LangChain with GPT 4 & GPT Turbo 3.5, with both long and short text descriptions, and achieved good results.

**Next Week:**

* **Zhiqi to work either of the following task:**
  + **improve Amazon Chronos time series forecasting results with fine-tuning**
  + **Explore multivariate forecasting**
  + **Start working multi-modal data with Agentic Ai approach:** [**Top 5 Agentic AI Frameworks to Watch in 2025 | by Lekha Priya | Medium**](https://urldefense.proofpoint.com/v2/url?u=https-3A__lekha-2Dbhan88.medium.com_top-2D5-2Dagentic-2Dai-2Dframeworks-2Dto-2Dwatch-2Din-2D2025-2D9d51b2b652c0&d=DwMFAg&c=009klHSCxuh5AI1vNQzSO0KGjl4nbi2Q0M1QLJX9BeE&r=vnk2zrjignlr6xNS-98yWqvsJq2QEohhDAwtLLrxtZQ&m=tB-ipPIXnEVYu6vULf3lMxhNsDY1oBwTeDUmbMQxLwGSfDdwG4p0_sR9oVRQEtHo&s=sipDOBzqhZbLoo5YobUdNecegJ9jdamEtsR5WFn3j1U&e=)
* **Ruobing to apply GPT o3-mini to time series forecasting, using Zhiqi’s datasets and comparing results – proceed to analyze 100 datasets for GPT o3.**
* **Ruonan to test threshold exceedance and slope calculation on DeepSeek/LangChain on 100 data sets (use the same dataset as Zhiqi).**
* **Bingqian to setup LangChain to use GPT 4 to remove the token limits, and reprocess data -- proceed to analyze 100 datasets for LangChain using the same dataset.**

**Side notes - Explore new ideas if still have time:**

* **Change Point Detection: Identifying points in time where the statistical properties of the time series data change significantly.**
* **Multivariate Anomaly Detection: Identify anomalies in the context of multiple variables.**