Mike (Michael) Gee

Email Website LinkedIn GitHub Twitter

Education

University of Southern California Los Angeles, CA
B.S. in Computer Science, GPA : 3.50 / 4.0 Jan 2021 – Dec 2025

- **Dean's List:** Spring 2021, Fall 2023, Fall 2024
- **Relevant Coursework:** Machine Learning*, Deep Learning*, Natural Language Processing

* Graduate-level course

Under Review

Conference:

[1] **Conversational Time Series Foundation Models: Towards Explainable and Effective Forecasting**
Defu Cao, ***Michael Gee***, Jinbo Liu, Hengxaun Wang, Wei Yang, Rui Wang, Yan Liu
ICLR 2026.

Research Experience

Undergraduate Researcher Oct 2024 – Present
USC Melady Lab *Advisor: Yan Liu*

- Designed LLM agent framework to improve generalizability and explainability in zero-shot time series forecasting that creates ensemble of Time Series Foundation Models (TSFMs)
- Engineered distributed pre-training and inference pipelines for TSFMs scaling up to 1 TB of data with GluonTS, PyTorch, and Hugging Face
- Achieved 1st place overall on GIFT-Eval Time Series Forecasting Leaderboard, resulting in 2nd author ICML 2026 submission

Undergraduate Researcher Feb 2025 – Present
USC DILL Lab *Advisors: Swabha Swayamdipta, Yixin Wang (UMich)*

- Leading project to improve interpretability in LLM evaluations by identifying fine-grained capabilites that benchmarks test
- Initiated project ideation and designed experiments assessing how well sparse autoencoders identify fine-grained capabilities in LLM benchmarks
- Presented weekly findings with graduate student collaborators and advisors to decide future research directions

Projects

Self-Supervised Contrastive Learning For Semantic Textual Similarity Aug 2024 – Dec 2024

- Elucidated success of fine-tuning models for sematic textual similarity via self-supervised contrastive learning in low-resource settings using PyTorch and Sentence-BERT
- Achieved 36% performance improvement after fine-tuning and utilized hypothesis testing to prove statistical significance of performance gains

Effects of Model Size on Machine Translation Aug 2024 – Dec 2024

- Evaluated how model size affects performance on German-to-English machine translation to provide cost–benefit analysis between using small- and large-scale translation models
- Developed PyTorch and Transformers pipeline for fine-tuning models with LoRA and found that performance gains plateaued with increasing model size

Leadership

Treasurer May 2022 – May 2024
Society of Asian Scientists and Engineers at USC

- Organized professional and social events for 300+ STEM students of Asian heritage with 10-person team
- Managed $5,000+ annual budget and coordinated trips to conferences in San Diego, CA and Atlanta, GA

Skills

Programming Languages: Python, C/C++, Java, MATLAB, HTML, CSS, JavaScript, PHP, SQL
ML/DL Libraries: PyTorch, GluonTS, Hugging Face, Sentence-BERT, scikit-learn
Technologies: Git, SLURM, W&B, LaTeX, Linux