

Zonglin Lyu

Email | Phone: (646) 445-9529 | [Website](#) | [Google Scholar](#)

EDUCATION

University of Central Florida , Orlando, FL Ph.D. in Computer Science	Jan 2025 —
University of Utah , Salt Lake City, UT (transferred) Ph.D. in Computer Science	Aug 2024 — Dec 2024
Columbia University , New York, NY M.S. in Operations Research	Sept 2021 — Dec 2022
University of California San Diego , La Jolla, CA B.S. in Applied Mathematics	Sept 2017 — June 2020

RESEARCH INTERESTS

- Artificial Intelligence
- Computer Vision
- Multi-modal Learning
- Generative Models

PUBLICATION

^{*}: equal in contribution

[†]: corresponding author

1. **Zonglin Lyu**, Ming Li, Xinxin Liu, and Chen Chen[†]. CPO: Condition Preference Optimization for Controllable Image Generation. **NeurIPS 2025** [pdf](#).
2. **Zonglin Lyu** and Chen Chen[†]. TLB-VFI: Temporal-Aware Latent Brownian Bridge Diffusion for Video Frame Interpolation. **ICCV 2025**. [pdf](#).
3. **Zonglin Lyu**, Ming Li, Jianbo Jao, and Chen Chen[†]. Frame Interpolation with Consecutive Brownian Bridge Diffusion. **ACM MM 2024**. [pdf](#)
4. Yiming Li^{*}, Zhiheng Li^{*}, Nuo Chen^{*}, Moonjun Gong^{*}, **Zonglin Lyu**^{*}, Zehong Wang, Peili Jiang, Chen Feng[†]. Multiagent Multitraversal Multimodal Self-Driving: The MARS Dataset. **CVPR 2024**. [pdf](#)
5. Xuande Feng^{*}, **Zonglin Lyu**^{*,†}. How Features Benefit: Parallel Series Embedding for Multivariate Time Series Forecasting with Transformer. **ICTAI 2022**. [pdf](#)

REPRINT

^{*}: equal in contribution

[†]: corresponding author

1. Zonglin Lyu, Juexiao Zhang, Mingxuan Lu, Yiming Li, and Chen Feng[†]. *Tell me where you are*: Multimodal LLMs Meet Place Recognition. (Arxiv 2024). [pdf](#)
2. Yiming Li^{*}, Zonglin Lyu^{*}, Mingxuan Lu, Chao Chen, Michael Milford, and Chen Feng[†]. ”Collaborative Visual Place Recognition.” (Arxiv 2023).[pdf](#)

WORK EXPERIENCE

Student Researcher

Host: Rui Wang

ByteDance Seed, CA

Sept 2025 - present

- Involved in Vision Foundation Model Research (currently confidential).

RESEARCH EXPERIENCE

Controllable Image Generation

Advisor: Chen Chen

University of Central Florida, FL

Jan 2025 - present

- Propose a Condition Preference Optimization method to enhance the controllability of image generation models, achieving state-of-the-art performance ([paper](#)).
- Incorporate FLUX.1 in our method.

Video Interpolation with Diffusion Models

Advisor: Chen Chen

University of Central Florida, FL

Feb 2024 - Feb 2025

- Design a Diffusion-based Frame Interpolation method that achieves SOTA performance, accepted by MM 2024 ([paper](#)).
- Further improvement on enabling temporal aware formulation is accepted to ICCV 2025 ([paper](#)).

AI4CE Lab

Advisor: Chen Feng

New York University, NY
Jan 2023 - Feb 2024

- Formulate the first framework for Collaborative Visual Place Recognition ([paper](#)).
- Collect and benchmark a large-scale outdoor dataset ([paper](#)).
- Design a training-free approach to incorporate Multimodal LLMs into VPR ([paper](#)).

Transformer in Multivariate Time Series Prediction

Self-designed research

Columbia University, NY
March 2022 - July 2022

- Propose Parallel Series Embedding method applied in transformer-based models to predict time series, achieving notable improvements (at most 50% reduction in RMSE) over the baseline ([paper](#), [code](#)).

ACADEMIC SERVICES

- Reviewer: IROS 2024, T-CSVT 2024

SKILLS

- **Relevant Coursework:** Deep Learning, Machine Learning, Simulation, Reinforcement Learning (audit), Computer Vision, Probability, Statistics, Stochastic Processes, Optimization, Numerical Analysis, Linear Algebras
- **Online Courses:** Analysis of Algorithm, Data Structure
- **Programming and Software** Python (Pytorch, Numpy, Pandas, Matplotlib, etc), Java, C, C++, SQL, R, MATLAB, LaTeX.