YIDONG OUYANG

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EDUCATION

University of California, Los Angeles August 2024 - June 2026
Ph.D. major in Statistics, Department of Statistics & Data Science
Advised by Guang Cheng *Los Angeles*

The Chinese University of Hong Kong, Shenzhen September 2021 - June 2024
M.Phil. major in Data Science, School of Data Science
Advised by Liyan Xie, co-advised by Guang Cheng *Shenzhen*

Central University of Finance and Economics September 2017 - June 2021
Bachelor major in Management Information Systems (GPA 90.48/100) top4/52 *Beijing*
· Honors: **National Scholarship 2018** (only the top 1% of students can be entitled)

RESEARCH INTEREST

· Generative Model: Diffusion model, Diffusion Language Model, Discrete Flow Matching
· Post-training: Preference optimization (e.g., GRPO), Out-of-Distribution Generalization, Robustness

PUBLICATIONS

Research Highlight

· [**P1**] Discrete Guidance Matching: Exact Guidance and its Application to Human Preference Alignment. **Yidong Ouyang***, Zhengyan Wan*, Liyan Xie, Fang Fang, Hongyuan Zha, Guang Cheng, arxiv.org:2509.21912.

· [**C1**] Transfer Learning for Diffusion Models. **Yidong Ouyang**, Liyan Xie, Hongyuan Zha, Guang Cheng, Neural Information Processing Systems (NeurIPS) 2024.

· [**C2**] Improving Adversarial Robustness by Sample-Efficient Synthetic Data Generation. **Yidong Ouyang**, Liyan Xie, Guang Cheng, International Conference on Machine Learning (ICML) 2023.

· [**P2**] Finetuning-free Alignment of Diffusion Model for Text-to-Image Generation. **Yidong Ouyang**, Liyan Xie, Hongyuan Zha, Guang Cheng.

· [**P3**] MissDiff: Training Diffusion Models on Tabular Data with Missing Values. **Yidong Ouyang**, Liyan Xie, Chongxuan Li, Guang Cheng. arXiv:2307.00467. (Presented in part in International Conference on Machine Learning (ICML) 2023 workshop on Structured Probabilistic Inference & Generative Modeling).

Journal Articles

· [**J1**] Generalizing to Unseen Domains: A Survey on Domain Generalization. Jindong Wang, Cuiling Lan, Chang Liu, **Yidong Ouyang**, Tao Qin, Wang Lu, Yiqiang Chen, Wenjun Zeng, Philip S. Yu. IEEE Transactions on Knowledge and Data Engineering (TKDE) 2022.

· [**J2**] Learning Efficient Convolutional Networks through Irregular Convolutional Kernels. Weiyu Guo, Jiabin Ma, **Yidong Ouyang**, Liang Wang, Yongzhen Huang. Neurocomputing 2022.

Conference Proceedings

- [**C3**] Generalizing to Unseen Domains: A Survey on Domain Generalization. Jindong Wang, Cuiling Lan, Chang Liu, **Yidong Ouyang**, Tao Qin. International Joint Conference on Artificial Intelligence (IJCAI) 2021 survey track.

Preprints

- [**P4**] Reinforcing the Generation Order of Multimodal Diffusion Language Models. **Yidong Ouyang**, Zhe Wang, Dmitriy Bespalov, Guang Cheng.
- [**P5**] Error Analysis of Discrete Flow with Generator Matching. Zhengyan Wan, **Yidong Ouyang**, Qiang Yao, Liyan Xie, Fang Fang, Hongyuan Zha, Guang Cheng, arxiv.org:2509.21906.
- [**P6**] Continual Density Ratio Estimation for Online Time Series with Applications in Change Detection. **Yidong Ouyang**, Liyan Xie.
- [**P7**] Attention Enables Zero Approximation Error. Zhiying Fang, **Yidong Ouyang**, Ding-Xuan Zhou, Guang Cheng, arXiv:2202.12166.

RESEARCH INTERN

- Amazon AWS bedrock, Multimodal Masked Diffusion Model, 2025.6 - 2025.9

HONORS AND AWARDS

- Graduate Dean's Scholars Award, UCLA, 2024.
- NeurIPS Travel Award, 2024.
- Duan Yong Ping Meritorious Research Award, CUHKSZ, 2023.
- The 4th TBSI Workshop on Learning Theory, Best Poster Award, Second Place, 2022.
- The Second Doctoral and Postdoctoral Academic Forum, Poster Runner Up, 2022.
- Excellence in Academic Research and Innovation Scholarship, CUFE, 2018.
- Comprehensive Development Scholarship, first prize, CUFE, 2018.

TEACHING EXPERIENCES

- Teaching Assistant, STATS 10, Fall 2025.
- Graduate Student Instructor for 2022 SDS new PhD student bootcamp, Summer 2022.
- Teaching Assistant, DDA4010 Bayesian Statistics, Spring 2022.
- Teaching Assistant, STA3020 Statistical Inference, Fall 2021.

PROFESSIONAL SERVICE

- Journal reviewer: IEEE Transactions on Neural Networks and Learning Systems (TNNLS), IEEE Transactions on Knowledge and Data Engineering (TKDE).
- Conference reviewer: NeurIPS 2023-2025, ICLR 2024-2026, ICML 2024-2025, AAAI 2025, AISTATS 2025