

# YIDONG OUYANG

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## EDUCATION

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**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 INTERESTS

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- Guidance for Diffusion Models / Flow Matching / Discrete Flow Matching
- Predictor-Corrector for Masked Diffusion Models and Discrete Flow Matching
- Post-training for Masked Diffusion Models and Discrete Flow Matching

## RESEARCH EXPERIENCE

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- **Google AI innovation and research**, Research Intern, Acceleration of Diffusion Language Model, 2026.1-2026.4, Mountain View.
- **Amazon AWS bedrock**, Applied Scientist Intern, Multimodal Masked Diffusion Model, 2025.6 - 2025.9, Arlington.

## PUBLICATIONS

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### Research Highlight

- [C1] Discrete Guidance Matching: Exact Guidance for Discrete Flow Matching. **Yidong Ouyang\***, Zhengyan Wan\*, Liyan Xie, Fang Fang, Hongyuan Zha, Guang Cheng, ICLR 2026.
- [C2] Transfer Learning for Diffusion Models. **Yidong Ouyang**, Liyan Xie, Hongyuan Zha, Guang Cheng, Neural Information Processing Systems (NeurIPS) 2024.
- [C3] Improving Adversarial Robustness by Sample-Efficient Synthetic Data Generation. **Yidong Ouyang**, Liyan Xie, Guang Cheng, International Conference on Machine Learning (ICML) 2023.
- [P1] Training-Free Self-Correction for Multimodal Masked Diffusion Models. **Yidong Ouyang**, Panwen Hu, Zhengyan Wan, Zhe Wang, Liyan Xie, Dmitriy Bespalov, Ying Nian Wu, Guang Cheng, Hongyuan Zha, Qiang Sun. arXiv:2602.02927
- [P2] Alignment of Diffusion Model and Flow Matching for Text-to-Image Generation. **Yidong Ouyang**, Liyan Xie, Hongyuan Zha, Guang Cheng. arXiv:2602.00413
- [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).

- [P4] Error Analysis of Discrete Flow with Generator Matching. Zhengyan Wan, **Yidong Ouyang**, Qiang Yao, Liyan Xie, Fang Fang, Hongyuan Zha, Guang Cheng, arXiv:2509.21906.
- [P5] Corrected Samplers for Discrete Flow Models. Zhengyan Wan, **Yidong Ouyang**, Liyan Xie, Fang Fang, Hongyuan Zha, Guang Cheng, arXiv:2601.22519.

### 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

- [C4] 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

- [P6] Reinforcing the Generation Order of Multimodal Diffusion Language Models. **Yidong Ouyang**, Zhe Wang, Dmitriy Bespalov, Guang Cheng.
- [P7] Continual Density Ratio Estimation for Online Time Series with Applications in Change Detection. **Yidong Ouyang**, Liyan Xie.
- [P8] Attention Enables Zero Approximation Error. Zhiying Fang, **Yidong Ouyang**, Ding-Xuan Zhou, Guang Cheng, arXiv:2202.12166.

## HONORS AND AWARDS

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- 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

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- 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

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- 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