

HUIJIE ZHANG

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EDUCATION

- University of Michigan, Ann Arbor** Ann Arbor, U.S.A
Ph.D. in Electrical Engineering and Computer Science Sep. 2023 - May. 2027 (expected)
- Advisor: [Prof. Qing Qu](#)
 - Areas of Study: Diffusion Model, Generalization, Interpretability
 - GPA: 4.0/4.0
- Research Assistant in Electrical Engineering and Computer Science* Dec. 2022 - May. 2023
- Advisor: [Prof. Qing Qu](#)
 - Areas of Study: Diffusion Model
- M.S.E in Mechanical Engineering* Sep. 2020 - Dec. 2022
- Advisor: [Prof. Odest Chadwicke Jenkins](#)
 - Areas of Study: Robot Perception, Transparent Objects Perception
 - GPA: 4.0/4.0
- Huazhong University of Science and Technology** Wuhan, China
B.S. in Mechanical Engineering Sep. 2016 - May. 2020
- Advisor: [Prof. Zhigang Wu](#)
 - Areas of Study: Soft Robot
 - GPA: 3.9/4.0

WORKING EXPERIENCE

- DeepMind, Google** San Francisco, U.S.A
Student Researcher Jun. 2026 - Dec. 2026 (expected)
- Mentor: [Joe Ortiz](#) and [Ruiqi Gao](#)
 - Developing test-time training techniques for long-video generation.
- Creative vision team, Snap Inc.** Los Angeles, U.S.A
Research Intern Jun. 2025 - Dec. 2025
- Mentor: [Ivan Skorokhodov](#), [Aliaksandr Siarohin](#) and [Sergey Tulyakov](#)
 - Developed a few-step diffusion model for efficient generative modeling. Proposed AlphaFlow, achieving state-of-the-art performance on the ImageNet benchmark.

HONORS AND FELLOWSHIPS

- 2026 **ICML 2026 Gold Reviewers**
- 2026 **Rackham Predoctoral Fellowship** [\[Website\]](#)
- 2025 **NeurIPS 2025 Outstanding Reviewers** [\[Website\]](#)
- 2025 **Publications reported by SIAM** [\[Website\]](#)
- 2025 **ICLR 2025 Outstanding Reviewers,** [\[Website\]](#)
- 2024 **NeurIPS 2024 Outstanding Reviewers,** [\[Website\]](#)
- 2023 **NeurIPS workshop Best Paper award,** [\[Website\]](#)/[\[News from Umich\]](#)
- 2023 **Ph.D. Student Scholarship,** University of Michigan, Ann Arbor

PUBLICATIONS

PREPRINTS

1. **Huijie Zhang**, Zijiang Huang, Siyi Chen, Jinfan Zhou, Zekai Zhang, Peng Wang and Qing Qu. "Understanding Generalization in Diffusion Models via Probability Flow Distance." [\[Arxiv\]](#)
2. Peng Wang*, **Huijie Zhang***, Zekai Zhang, Siyi Chen, Yi Ma, and Qing Qu. "Diffusion models learn low-dimensional distributions via subspace clustering." In submission to *The Journal of Machine Learning Research (JMLR)*. [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)

PEER-REVIEWED CONFERENCE PROCEEDINGS

1. **Huijie Zhang**, Aliaksandr Siarohin, Willi Menapace, Michael Vasilkovsky, Sergey Tulyakov, Qing Qu and Ivan Skorokhodov. "AlphaFlow: Understanding and Improving MeanFlow Models." *The Fourteenth International Conference on Learning Representations (ICLR 2026)* [\[Arxiv\]](#)/[\[Code\]](#)
2. **Huijie Zhang***, Jinfan Zhou*, Yifu Lu, Minzhe Guo, Peng Wang, Liyue Shen, and Qing Qu. "The emergence of reproducibility and consistency in diffusion models." *The Forty-first International Conference on Machine Learning (ICML 2024)* [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)/[\[News\]](#)/[\[Talk\]](#)
🏆 **Best paper award**, [NeurIPS Diffusion Model Workshop 2023](#)
3. **Huijie Zhang***, Yifu Lu*, Ismail Alkhouri, Saiprasad Ravishankar, Dogyoon Song, and Qing Qu. "Improving Training Efficiency of Diffusion Models via Multi-Stage Framework and Tailored Multi-Decoder Architecture." *The IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2024)*. [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)
4. **Huijie Zhang**, Peng Wang, Siyi Chen, Zekai Zhang, and Qing Qu. "Generalization of diffusion models: Principles, theory, and implications." *SIAM News (2025)*. [\[Website\]](#)
5. Wenda Li*, **Huijie Zhang***, and Qing Qu. "Shallow Diffuse: Robust and Invisible Watermarking through Low-Dimensional Subspaces in Diffusion Models." *The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS 2025)*. (**Spotlight, top 3.2%**) [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)
6. Siyi Chen*, **Huijie Zhang***, Minzhe Guo, Yifu Lu, Peng Wang, and Qing Qu. "Exploring low-dimensional subspaces in diffusion models for controllable image editing." *The Thirty-Eighth Annual Conference on Neural Information Processing Systems (NeurIPS 2024)* [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)
7. Lianghe Shi*, Meng Wu*, **Huijie Zhang**, Zekai Zhang, Molei Tao and Qing Qu. "A Closer Look at Model Collapse: From a Generalization-to-Memorization Perspective." *The Thirty-Ninth Annual Conference on Neural Information Processing Systems (NeurIPS 2025)*. (**Spotlight, top 3.2%**) [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)
🏆 **Oral Presentation**, [ICML MemFM Workshop 2025](#)
8. Xiaotong Chen, **Huijie Zhang**, Zeren Yu, Anthony Pipari, and Odest Chadwicke Jenkins. "Clearpose: Large-scale transparent object dataset and benchmark." *The European conference on computer vision*, pp. 381-396. (ECCV 2022) [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)
9. Xiaotong Chen, **Huijie Zhang**, Zeren Yu, Stanley Lewis, and Odest Chadwicke Jenkins. "Progresslabeller: Visual data stream annotation for training object-centric 3d perception." *The 2022 IEEE/RSJ International Conference on Intelligent Robots and Systems*, pp. 13066-13073. (IROS 2022) [\[Arxiv\]](#)/[\[Code\]](#)/[\[Website\]](#)

TEACHING

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|---|---|
| <p>University of Michigan, Ann Arbor
Graduate Student Instructor for EECS 453</p> <ul style="list-style-type: none"> • Developed course materials, led discussions, and provided student support through office hours for a course on machine learning. • Teaching Evaluation: 4.7/5.0 | <p>Ann Arbor, U.S.A
Sep. 2024 - Dec. 2024</p> |
| <p>University of Michigan, Ann Arbor
High School Summer Camp Instructor for AI Magic</p> <ul style="list-style-type: none"> • Developed and delivered lectures on generative AI to high school students. | <p>Ann Arbor, U.S.A
Aug. 2024</p> |

SERVICE

Reviewer: NeurIPS, ICML, ICLR, CVPR, TMLR, IEEE J-STSP, CPAL, ICASSP