

Mellon M. Zhang

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 Mellon (Meilong) Zhang |  [meilongzhang](https://github.com/meilongzhang) |  Mellon M. Zhang |  [meilongzhang](https://twitter.com/meilongzhang)
Atlanta, Georgia - Citizenship: US

RESEARCH INTERESTS

My research focuses on enabling reliable real-world deployment of perception-driven robotic systems and foundation models. I am interested in improving the real-time reactivity, scalability, and generalizability of end-to-end (E2E) networks and vision-language-action (VLA) models for robotics and autonomous driving.

EDUCATION

- **Georgia Institute of Technology** Aug 2023 - May 2028 (expected)
Ph.D. in Machine Learning, advised by Prof. Glen Chou Atlanta, USA
- **University of California, Berkeley** Aug 2019 - May 2023
B.A. in Computer Science Berkeley, USA

PUBLICATIONS

*=EQUAL CONTRIBUTION, C=CONFERENCE, W=WORKSHOP, S=IN SUBMISSION, P=IN PREPARATION

- [C.2] M. M. Zhang*, C. Huang*, R. Azarcon, G. Chou, and Z. Kira. **MAPS: Preserving Vision-Language Representations via Module-Wise Proximity Scheduling for Better Vision-Language-Action Generalization.** In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR)*, 2026. [[arXiv](#)] [[site](#)]
- [C.1] M. M. Zhang, G. Chou, and S. Mukhopadhyay. **Towards Streaming LiDAR Object Detection with Point Clouds as Egocentric Sequences.** In *IEEE/CVF Winter Conference on Applications of Computer Vision (WACV)*, 2026. [[arXiv](#)]
- [W.1] M. M. Zhang and G. Chou. **Polar Hierarchical Mamba.** In *Workshop on 4D Vision: Modeling the Dynamic World @ CVPR*, 2025. [[pdf](#)]
- [S.1] M. M. Zhang, H. Kumawat, and S. Mukhopadhyay. **DFDNet: Directional Feature Diffusion for Efficient Fully-Sparse LiDAR Object Detection.** 2024. *Under review.* [[pdf](#)]
- [P.1] M. M. Zhang. **spkan: Sparse Convolutions with Kolmogorov-Arnold Networks**, 2024. *In preparation.* [[github](#)]

EXPERIENCE

- **Toyota Research Institute – Mobile Manipulation Team** Jun 2026 - Sep 2026
Robotics Research Intern - Advisor: Dr. Richard Cheng Los Altos, USA
 - Projects: Learned policies for mobile manipulation
- **Trustworthy Robotics Lab** Jul 2025 - Current
Graduate Research Assistant - Advisor: Prof. Glen Chou Atlanta, USA
 - Projects: Vision-language-action models, autonomous driving, 3D perception.
- **Gigascale Reliable Energy-Efficient Nanosystem Lab** Aug 2023 - Jul 2025
Graduate Research Assistant - Advisor: Prof. Saibal Mukhopadhyay Atlanta, USA
 - Projects: Efficient perception
- **Knight Lab** Aug 2021 - May 2023
Undergraduate Research Assistant - Advisor: Prof. Robert Knight Berkeley, USA
 - Projects: LLM interpretability

HONORS AND AWARDS

- **Qualcomm Innovation Fellowship Finalist** Mar 2026
Accepted to the final round of QIF 2026 (13.3%).
- WACV 2026 Travel Grant Award Dec 2025
- Lambda Labs Research Grant Jul 2025
- UC Berkeley Rose Hills Fellowship (1 of 45 university-wide) May 2022
- Georgia Tech SURE Fellowship (1 of 50 nationally) May 2021

SERVICE AND TEACHING

- **Teaching**
 - Graduate Teaching Assistant, AE 2610 Introduction to Experimental Methods in Aerospace (Fall 2025)
 - Graduate Teaching Assistant, CSE 7850 Machine Learning in Computational Biology (Spring 2026)
- **Program Committee & Reviewing:** CoRL ('25), DeLTa @ ICLR ('26)
- **Mentoring:** Computer Science Mentors @ UCB ('20, '21), Project ENGAGES @ GT ('25)

SKILLS

- **Programming:** Python (PyTorch, Tensorflow, Scikit-learn etc.), C++, CUDA, LaTeX, Java, Javascript, C, RISC-V
- **Development:** Linux, bash, Git, SLURM, HPC