

# 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 2025 - May 2028 (expected)  
Atlanta, USA  
*Ph.D. in Machine Learning, advised by Prof. Glen Chou*
- **Georgia Institute of Technology** Aug 2023 - Aug 2025  
Atlanta, USA  
*M.S. in Electrical and Computer Engineering, advised by Prof. Saibal Mukhopadhyay*
- **University of California, Berkeley** Aug 2019 - May 2023  
Berkeley, USA  
*B.A. in Computer Science*

## PAPERS

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

- [S.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**. 2025. *Under review.* [[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

- **Trustworthy Robotics Lab** Jul 2025 - Current  
Atlanta, USA  
*Graduate Research Assistant - Advisor: Prof. Glen Chou*
  - Projects: Vision-language-action models, autonomous driving, 3D perception.
- **Gigascale Reliable Energy-Efficient Nanosystem Lab** Aug 2023 - Jul 2025  
Atlanta, USA  
*Graduate Research Assistant - Advisor: Prof. Saibal Mukhopadhyay*
  - Projects: Efficient perception
- **Knight Lab** Aug 2021 - May 2023  
Berkeley, USA  
*Undergraduate Research Assistant - Advisor: Prof. Robert Knight*
  - Projects: LLM interpretability

## HONORS AND AWARDS

- **WACV 2026 Travel Grant Award** Dec 2025  
*Travel Award for participation in WACV 2026 to present and disseminate research.*
- **Lambda Labs Research Grant** Jul 2025  
*Compute funding for research on active uncertainty mitigation in autonomous driving.*
- **UC Berkeley Rose Hills Fellowship** May 2022  
*Merit-based fellowship for independent summer research funding. One of 45 recipients selected university-wide.*
- **Georgia Tech SURE Fellowship** May 2021  
*Merit-based summer research internship. One of 50 recipients selected nationally.*

## 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)

## SKILLS

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