Zipeng Fu

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Education & Experience

Stanford University   09/2022 – xx/2025
PhD in Computer Science
- Advised by Prof. Chelsea Finn
- Pierre and Christine Lamond Fellow (top 7 in the Computer Science Department)
- Working on general-purpose robot AI models and mobile manipulation

Google DeepMind   06/2023 – 12/2023
Student Researcher
- Worked on large foundation models for robot navigation. Advised by Jie Tan.

Carnegie Mellon University (CMU)   08/2020 – 06/2022
Master of Science in Machine Learning
Graduate Student Researcher at the Robotics Institute
- Advised by Prof. Deepak Pathak and Prof. Jitendra Malik
- Worked on legged locomotion using machine learning

University of California, Los Angeles (UCLA)   09/2016 – 06/2020
Bachelor of Science in Computer Science and Engineering
Bachelor of Science in Applied Mathematics
- Advised by Prof. Song-Chun Zhu, Prof. Mathieu Bauchy, and Prof. Weinan Zhang

Selected Publications (available at zipengfu.github.io | research interests: Robotics, Machine Learning, Computer Vision)

HumanPlus: Humanoid Shadowing and Imitation from Humans   CoRL 2024
Z. Fu*, Q. Zhao*, Q. Wu*, G. Wetzstein, C. Finn

Mobile ALOHA: Learning Bimanual Mobile Manipulation with Low-Cost Whole-Body Teleoperation   CoRL 2024
Z. Fu*, TZ. Zhao*, C. Finn
media coverage: MIT Tech Review, IEEE Spectrum, VentureBeat, TechXplore, CGTN, Stanford Daily, South China Morning Post, The Beijing News, The Economic Times (India), Analytics India Magazine, Paris Match (France), The Chosun Daily (Korea), LevTech (Japan), Sanlian Life Weekly, InceptiveMind, 36Kr (China), TMTPos, The Paper (China), Securities Times (China)
in-person live demo for: Samsung Research, Toyota Research Institute, Unitree Robotics, XPeng, Dobot Robotics, Ambarella Semiconductor

Mobility VLA: Multimodal Instruction Navigation with Long-Context VLMs and Topological Graphs   CoRL 2024
HTL. Chiang*, Z Xu*, **Z Fu***, …, C. Parada*, C. Finn*, P. Xu*, S. Levine*, J. Tan*

UMI on Legs: Making Manipulation Policies Mobile with Manipulation-Centric Whole-body Controllers   CoRL 2024
H. Ha*, Y. Gao*, **Z. Fu**, J. Tan, S. Song

Open X-Embodiment: Robotic Learning Datasets and RT-X Models   ICRA 2024
Open X-Embodiment Collaboration led by Google DeepMind

Robot Parkour Learning   CoRL 2023
Z. Zhuang*, **Z. Fu***, J. Wang, C. Atkeson, S. Schwertfeger, C. Finn, H. Zhao   Best System Finalist

Deep Whole-Body Control: Learning a Unified Policy for Manipulation and Locomotion   CoRL 2022
Z. Fu*, X. Chen*, D. Pathak   Best System Finalist

Coupling Vision and Proprioception for Navigation of Legged Robots   CVPR 2022

Z. Fu*, A. Kumar*, A. Agarwal, H. Qi, J. Malik, D. Pathak   Best Paper at Multimodal Leanring Workshop

Minimizing Energy Consumption Leads to the Emergence of Gaits in Legged Robots   CoRL 2021

Z. Fu, A. Kumar, J. Malik, D. Pathak

RMA: Rapid Motor Adaptation for Legged Robots   RSS 2021

A. Kumar, Z. Fu, D. Pathak, J. Malik

media coverage: National Geographic (June 2022), Washington Post, Wall Street Journal, DARPA, TechCrunch, CBS TV, Forbes, Meta AI, CNET, TechXplore, L'ADN (France), Digitech News (Italy), CNBeta (China), Synced Review (China), Observador (Portugal), Beratakini (Malaysia), 3DNews (Russia), 15Min (Lithuania), GeekTime (Israel)

Emergence of Theory of Mind Collaboration in Multi-Agent Systems   NeurIPS 2019 Workshop

L. Yuan, Z. Fu, L. Zhou, K. Yang, SC. Zhu

Emergence of Pragmatics from Referential Game between Theory of Mind Agents   NeurIPS 2019 Workshop

L. Yuan, Z. Fu, J. Shen, L. Xu, J. Shen, SC. Zhu

Honors

2023	CoRL 2023 Best System Finalist
2022	CoRL 2022 Best System Finalist
2022	Pierre and Christine Lamond Fellowship
2022	MIT Hewlett Packard Fellowship (declined)
2022	UC Berkeley AI Research Ignition Award (declined)
2022	CVPR 2022 Best Paper at Multimodal Learning Workshop
2020	Latin Honors, UCLA
2019	ACM TURC 2019 Best Paper Runner-up Award
2014	Bronze Medal, British Mathematical Olympiad

Invited Talks

Building Deployable Robot Learning Systems   2024

- Academic talks: University of Michigan EECS 598-010 (Action and Perception) Guest Lecture, UCSD Contextual Robotics Institute Seminar, City University of Hong Kong GairLab, Stanford ME268 (Robotics, AI and Design of Future Education) Guest Lecture, OpenDriveLab
- Industrial talks: Meta Reality Lab, Coatue, Hugging Face, SF GenAI Summit, Fourier Intelligence, Stardust Robotics, AgileX Robotics

Deep Whole-Body Control   2022

- Stanford Vision and Learning Lab

Professional Services

Robotics: reviewer of ICRA, CoRL, RA-L, IROS

Machine Learning: reviewer of NeurIPS, ICML, ICLR, CoLLAs

Computer Vision: reviewer of CVPR, ICCV, ECCV

Technical Skills

- Python, C++, Bash, C
- PyTorch, TensorFlow, Numpy, Git, ROS, IsaacGym, MuJoCo, PyBullet, RaiSim