

Zhao-Heng Yin

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Document Name: Zhaoheng Yin

Education

- University of California, Berkeley** 2023 - 2028 (Expected)
Doctor of Philosophy (Ph.D.) - Computer Science
○ Advisor: Prof. Pieter Abbeel.
- Hong Kong University of Science and Technology** 2021 - 2023
Master of Philosophy (M.Phil.) - Electronic and Computer Engineering
○ Advisor: Prof. Qifeng Chen.
- Nanjing University** 2017 - 2021
Bachelor of Science (B.S.) - Computer Science (Honored Class), Mathematics
○ Advisor: Prof. Wu-Jun Li.

Publications

The information of the following publications can be found on [my website](#). * indicates equal contribution.

- Zhao-Heng Yin** and Pieter Abbeel. "Offline Imitation Learning through Graph Search and Retrieval". In *Robotics: Science and Systems (RSS)*, 2024.
- Toru Lin*, **Zhao-Heng Yin***, Haozhi Qi, Pieter Abbeel, and Jitendra Malik. "Twisting Lids off with Two Hands". In Submission, 2024.
- Ying Yuan*, Haichuan Che*, Yuzhe Qin*, Binghao Huang, **Zhao-Heng Yin**, Kang-Won Lee, Yi Wu, Soo-Chul Lim, and Xiaolong Wang. "Robot Synesthesia: In-Hand Manipulation with Visuotactile Sensing". In *International Conference on Robotics and Automation (ICRA)*, 2024.
- Yuyang Liu*, Weijun Dong*, Yingdong Hu, Chuan Wen, **Zhao-Heng Yin**, Chongjie Zhang, and Yang Gao. "Imitation Learning from Observation with Automatic Discount Scheduling". In *International Conference on Learning Representations (ICLR)*, 2024.
- Zhao-Heng Yin***, Binghao Huang*, Yuzhe Qin, Qifeng Chen, and Xiaolong Wang. "Rotating without Seeing: Towards In-hand Dexterity through Touch". In *Robotics: Science and Systems (RSS)*, 2023.
- Zhao-Heng Yin**, Yang Gao, and Qifeng Chen. "Spatial Generalization of Visual Imitation Learning with Position-Invariant Regularization". In *Robotics: Science and Systems (RSS) Workshop (Long Paper)*, 2023.
- Jialei Huang, **Zhao-Heng Yin**, Yingdong Hu, and Yang Gao. "Policy Contrastive Imitation Learning". In *International Conference on Machine Learning (ICML)*, 2023.
- Ke Cheng, Sheng Zhang, Chenghong Tu, Xiaohang Shi, **Zhao-Heng Yin**, Sanglu Lu, Yu Liang, and Qing Gu. "ProScale: Proactive Autoscaling for Microservice With Time-Varying Workload At the Edge". In *IEEE Transactions on Parallel and Distributed Systems (TPDS)*, 2023.
- Zhao-Heng Yin**, Weirui Ye, Qifeng Chen, and Yang Gao. "Planning for Sample Efficient Imitation Learning". In *Neural Information Processing Systems (NeurIPS)*, 2022.
- Zhao-Heng Yin**, Lingfeng Sun, Hengbo Ma, Masayoshi Tomizuka, and Wu-Jun Li. "Cross Domain Robot Imitation with Invariant Representation". In *IEEE International Conference on Robotics and Automation (ICRA)*, 2022.
- Yuzhe Qin*, Binghao Huang*, **Zhao-Heng Yin**, Hao Su, and Xiaolong Wang. "DexPoint: Generalizable Point Cloud Reinforcement Learning for Sim-to-Real Dexterous Manipulation". In *Conference on Robot Learning (CoRL)*, 2022.
- Zhao-Heng Yin***, Lingfeng Sun*, Liting Sun, Masayoshi Tomizuka, and Wei Zhan. "Diverse Critical Interaction Generation for Planning and Planner Evaluation". In *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*, 2021.

13. **Zhao-Heng Yin** and Wu-Jun Li. "TOMA: Topological Map Abstraction for Reinforcement Learning". *arXiv preprint:2005.06061*, 2020.

Employment

Meta AI Research **2024**
Research Scientist Intern

Research Experience

I conduct research on Embodied AI. Below are some of my past research affiliations.

University of California, Berkeley with Prof. Pieter Abbeel.	2023–present
Hong Kong University of Science and Technology with Prof. Qifeng Chen.	2022-2023
Tsinghua University with Prof. Yang Gao.	2021-2023
University of California, San Diego with Prof. Xiaolong Wang.	2022-2023
University of California, Berkeley with Prof. Masayoshi Tomizuka.	2020
Nanjing University with Prof. Wu-Jun Li.	2019–2021

Skills

- **Language:** English, Chinese.
- **Programming:** C, C++, Python, Java, MATLAB, Verilog HDL, HTML/CSS/Javascript, Shell, TEX.
- **Toolsets:** Docker, Kubernetes, Git, Linux.
- **Physics Simulation:** MuJoCo, PyBullet, SAPIEN, IsaacGym.
- **General Engineering Skills:** 3D Modeling (Solidworks and Blender), Embedded System Design (STM32 and Arduino), ROS, FPGA, Analog Circuit.

Honors and Awards

National Elite Scholarship, China 2020, 2021