Haozhi Qi

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Education

2018 - 2025 **University of California, Berkeley**
Ph.D. in Electrical Engineering and Computer Science
Advisors: Prof. Yi Ma and Prof. Jitendra Malik
Thesis: Multisensory Dexterity for Robotics

2013 - 2018 **Hong Kong University of Science and Technology**
Bachelor of Science in Mathematics
Bachelor of Science in Computer Science

Industrial Experience

2022 - 2025 **Meta FAIR**, Visiting Researcher
with Prof. Roberto Calandra and Mr. Mike Lambeta
Dexterous Manipulation at Embodied AI Group

2017 - 2018 **Microsoft Research Asia**, Research Intern
with Dr. Jifeng Dai and Dr. Yichen Wei
Object Detection at Visual Computing Group

2016 **Microsoft Research Asia**, Research Intern
with Dr. Jifeng Dai
Object Detection at Visual Computing Group

Honors and Awards

2025 Lotfi A. Zadeh Prize
For outstanding PhD research in soft computing and its applications
2024 EECS Evergreen Award for Undergraduate Researcher Mentoring
2021 - 2023 Meta AI Research Academic Grant
2023 Outstanding Demo Award at NeurIPS Robot Learning Workshop
2022 Best Paper Award at CVPR Multimodal Learning Workshop
2013 - 2017 HKUST Undergrad Scholarship
2016 Winner of Segmentation Track, MS COCO Challenge

Publications (* indicates equal contribution)

2025 P.1 **Haozhi Qi**, Brent Yi, Mike Lambeta, Yi Ma, Roberto Calandra, Jitendra Malik. From Simple to Complex Skills: The Case of In-Hand Object Reorientation.
International Conference on Robotics and Automation (**ICRA**), 2025

P.2   Himanshu Gaurav Singh*, Antonio Loquercio*, Carmelo Sferrazza, Jane Wu, **Haozhi Qi**, Pieter Abbeel, Jitendra Malik. Hand-Object Interaction Pretraining from Videos.
International Conference on Robotics and Automation (**ICRA**), 2025

P.3   Toru Lin, Yu Zhang*, Qiyang Li*, **Haozhi Qi***, Brent Yi, Sergey Levine, Jitendra Malik. Learning Visuotactile Skills with Two Multifingered Hands.
International Conference on Robotics and Automation (**ICRA**), 2025

P.4   Jessica Yin, **Haozhi Qi**, Jitendra Malik, James Pikul, Mark Yim, Tess Hellebrekers. Learning In-Hand Translation Using Tactile Skin With Shear and Normal Force Sensing.
International Conference on Robotics and Automation (**ICRA**), 2025

2024   P.5   Sudharshan Suresh, **Haozhi Qi**, Tingfan Wu, Taosha Fan, Luis Pineda, Mike Lambeta, Jitendra Malik, Mrinal Kalakrishnan, Roberto Calandra, Michael Kaess, Joe Ortiz, Mustafa Mukadam. Neural Feels with Neural Fields: Visuo-Tactile Perception for In-Hand Manipulation.
Science Robotics, November 2024

P.6   Jun Wang*, Ying Yuan*, Haichuan Che*, **Haozhi Qi***, Yi Ma, Jitendra Malik, Xiaolong Wang. Lessons from Learning to Spin "Pens".
Conference on Robot Learning (**CoRL**), 2024

P.7   Toru Lin*, Zhao-Heng Yin*, **Haozhi Qi**, Pieter Abbeel, Jitendra Malik. Twisting Lids Off with Two Hands.
Conference on Robot Learning (**CoRL**), 2024

2023   P.8   **Haozhi Qi**, Brent Yi, Sudharshan Suresh, Mike Lambeta, Yi Ma, Roberto Calandra, Jitendra Malik. General In-Hand Object Rotation with Vision and Touch.
Conference on Robot Learning (**CoRL**), 2023

2022   P.9   **Haozhi Qi***, Ashish Kumar*, Roberto Calandra, Yi Ma, Jitendra Malik. In-Hand Object Rotation via Rapid Motor Adaptation.
Conference on Robot Learning (**CoRL**), 2022

P.10   Zipeng Fu*, Ashish Kumar*, Ananye Agarwal, **Haozhi Qi**, Jitendra Malik, Deepak Pathak. Coupling Vision and Proprioception for Navigation of Legged Robots.
Computer Vision and Pattern Recognition (**CVPR**), 2022

P.11   Kwan Ho Ryan Chan*, Yaodong Yu*, Chong You*, **Haozhi Qi**, John Wright, Yi Ma. ReduNet: A White-box Deep Network from the Principle of Maximizing Rate Reduction.
Journal of Machine Learning Research (**JMLR**), accepted in 2022

2021   P.12   **Haozhi Qi**, Xiaolong Wang, Deepak Pathak, Yi Ma, Jitendra Malik. Learning Long-term Visual Dynamics with Region Proposal Interaction Networks.
International Conference on Learning Representations (**ICLR**), 2021

2020   P.13   **Haozhi Qi**, Chong You, Xiaolong Wang, Yi Ma, Jitendra Malik. Deep Isometric Learning for Visual Recognition.
International Conference on Machine Learning (**ICML**), 2020

2019   P.14   Yichao Zhou, **Haozhi Qi**, Jingwei Huang, Yi Ma. NeurVPS: Neural Vanishing Point Scanning via Conic Convolution.
Neural Information Processing System (**NIPS**), 2019

2019	P.15	Yichao Zhou, **Haozhi Qi**, Yuexiang Zhai, Qi Sun, Zhili Chen, Li-Yi Wei, Yi Ma. Learning to Reconstruct 3D Manhattan Wireframes from a Single Image. International Conference on Computer Vision (**ICCV**), 2019 (*Oral, 4.3% acceptance rate*)
	P.16	Yichao Zhou, **Haozhi Qi**, Yi Ma. End-to-End Wireframe Parsing. International Conference on Computer Vision (**ICCV**), 2019
2017	P.17	Jifeng Dai*, **Haozhi Qi***, Yuwen Xiong*, Yi Li*, Guodong Zhang*, Han Hu, Yichen Wei. Deformable Convolutional Networks. International Conference on Computer Vision (**ICCV**), 2017 (*Oral, 2.1% acceptance rate*) **ICCV 2017's Most Influential Paper #5**
	P.18	Yi Li*, **Haozhi Qi***, Jifeng Dai, Xiangyang Ji, Yichen Wei. Fully Convolutional Instance-aware Semantic Segmentation. Computer Vision and Pattern Recognition (**CVPR**), 2017 (*Spotlight, 8.0% acceptance rate*)

Pre-prints

2024	P.19	Mike Lambeta, Tingfan Wu, Ali Sengül, Victoria Rose Most, Nolan Black, Kevin Sawyer, Romeo Mercado, **Haozhi Qi**, Chaithanya Krishna Bodduluri, Alexander Sohn, Byron Taylor, Norb Tydingco, Gregg Kammerer, Dave Stroud, Jake Khatha, Kurt Jenkins, Kyle Most, Neal Stein, Ricardo Chavira, Thomas Craven-Bartle, Eric Sanchez, Yitian Ding, Jitendra Malik, Roberto Calandra. Digitizing Touch with an Artificial Multimodal Fingertip. Tech Report, November 2024
2023	P.20	Carolina Higuera, Joseph Ortiz, **Haozhi Qi**, Luis Pineda, Byron Boots, Mustafa Mukadam. Perceiving Extrinsic Contacts from Touch Improves Learning Insertion Policies. Tech Report, September 2023

Press Coverage

2024	Digitizing Touch with an Artificial Multimodal Fingertip TechCrunch, VentureBeat, The Robot Report Twisting Lids Off with Two Hands The AI Grid
2023	General In-hand Object Rotation with Vision and Touch New Scientist (UK), TU Dresden News
2022	In-Hand Object Rotation via Rapid Motor Adaptation MarkTechPost

Talks

2025	Multisensory Dexterity for Robotics
	University of Chicago (Department of Computer Science)
	UC San Diego (Department of Computer Science and Engineering)
	New York University (Electrical and Computer Engineering & Mechanical Engineering)
	Rutgers University (Department of Computer Science)
	Georgia Institute of Technology (School of Interactive Computing)
	Princeton University (Department of Computer Science)
	University of Michigan (Computer Science and Engineering Department & Robotics Department)
	The University of Hong Kong (School of Computing and Data Science)
2024	Manipulation and Perception with Multisensory Robot Hands
	Columbia University (hosted by Prof. Matei Ciocarlie)
	Princeton University (hosted by Prof. Jia Deng)
	New York University (hosted by Prof. Lerrel Pinto)
	Carnegie Mellon University (hosted by Prof. Katerina Fragkiadaki)
	University of Pennsylvania (hosted by Prof. Mark Yim)
	University of Illinois Urbana-Champaign (hosted by Prof. Justin Yim)
	Stanford University (Stanford Vision and Learning Lab)
2023	General In-hand Object Rotation with Vision and Touch
	Columbia University (hosted by Prof. Matei Ciocarlie)
	UC San Diego (hosted by Prof. Xiaolong Wang)
	Bay Area Computer Vision Day

Teaching

Guest Lectures

2024	Reinforcement Learning and Sim-to-Real
	[UC Berkeley] [CS294-277] "Robots That Learn" by Prof. Jitendra Malik
	Manipulation with Multi-fingered Hands
	[UIUC] [CS598YL] "Deep Learning for Robotic Manipulation" by Prof. Yunzhu Li
	[UC Berkeley] [EECS106B] "Robotic Manipulation and Interaction" by Prof. Shankar Sastry

Teaching Assistant

2021 Spring	Robotic Manipulation and Interaction
	Teaching Assistant with Prof. Yi Ma and Prof. Shankar Sastry
2020 Spring	Designing, Visualizing and Understanding Deep Neural Networks
	Teaching Assistant with Prof. John Canny
2019 Fall	High-dim Data Analysis with Low-dim Models
	Teaching Assistant with Prof. Yi Ma

Service

Workshop Organizer

2025	[RSS] Dexterous Manipulation: Learning and Control with Diverse Data
	[ICRA] Handy Moves: Dexterity in Multi-Fingered Hands

2024	[NeurIPS] Touch Processing: From Data to Knowledge
	[CoRL] Learning Robot Fine and Dexterous Manipulation: Perception and Control
	[RSS] Dexterous Manipulation: Design, Perception and Control
2023	[NeurIPS] Touch Processing: a New Sensing Modality for AI

Reviewer

Robotics	ICRA 21/24-25, CoRL 24-25, RSS 24-25, IROS 24-25, RA-L 23-25, T-RO 24, IJRR 24
	Humanoids 24, Science Robotics 24-25
Vision	CVPR 19-25, ICCV 19/21/23/25, ECCV 20/22/24, T-PAMI 20-22, IJCV 20-21
Learning	ICLR 22-23/25, ICML 21-25, NeurIPS 20-25, TMLR 22-25, AAAI 20-23

Community Service

2024	**Faculty Hiring Student Committee**, UC Berkeley
2021 - 2023	**Mentor**, Undergrad from Underrepresented Backgrounds
2020	**Graduate Admissions Committee**, UC Berkeley