Haozhi Qi

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Current Appointments

2026 - Present **University of Chicago**
Assistant Professor in Computer Science

2025 - Present **Amazon FAR**, Member of Technical Staff

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

Past Experience

2025 **Meta FAIR**, Research Scientist
Dexterous Manipulation at Embodied AI Group

2022 - 2025 **Meta FAIR**, Visiting Researcher
Dexterous Manipulation at Embodied AI Group

2017 - 2018 **Microsoft Research Asia**, Research Intern
Object Detection at Visual Computing Group

2016 **Microsoft Research Asia**, Research Intern
Object Detection at Visual Computing Group

Honors and Awards

2026 RSS Pioneers
Selected as one of thirty early-career researchers in robotics

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; † indicates equal advising)

Peer-reviewed Publications

2026 P.1 **Haozhi Qi***, Yen-Jen Wang*, Toru Lin, Brent Yi, Yi Ma, Koushil Sreenath†, Jitendra Malik†. Coordinated Humanoid Manipulation with Choice Policies.
International Conference on Humanoid Robots (**Humanoids**), 2026

P.2 Amber Xie, **Haozhi Qi**, Dorsa Sadigh. HandelBot: Real-World Piano Playing via Fast Adaptation of Dexterous Robot Policies.
International Conference on Humanoid Robots (**Humanoids**), 2026

P.3 Yunhai Feng, Natalie Leung, Jiaxuan Wang, Lujie Yang, **Haozhi Qi**, Preston Culbertson. A Minimalist Retargeting-Guided Reinforcement Learning Recipe for Dexterous Manipulation.
Conference on Robot Learning (**CoRL**), 2026

P.4 Botao He, Zhi Wang, Linna Kuang, Ishaan Ghosh, Jitendra Malik, Cornelia Fermuller, Tingfan Wu, Jiayuan Mao, Ruoshi Liu†, **Haozhi Qi**†, Yiannis Aloimonos†. ForceBand: Learning Forceful Manipulation with sEMG.
Conference on Robot Learning (**CoRL**), 2026

P.5 Chaoyi Pan, Changhao Wang, **Haozhi Qi**, Zixi Liu, Homanga Bharadhwaj, Akash Sharma, Tingfan Wu†, Guanya Shi†, Jitendra Malik†, Francois Hogan†. SPIDER: Scalable Physics-Informed Dexterous Retargeting.
International Conference on Intelligent Robots and Systems (**IROS**), 2026

P.6 Jessica Yin, **Haozhi Qi***, Youngsun Wi*, Sayantan Kundu, Mike Lambeta, William Yang, Changhao Wang, Tingfan Wu, Jitendra Malik, Tess Hellebrekers. OSMO: Open-Source Tactile Glove for Human-to-Robot Skill Transfer.
Robotics and Automation Letters (**RA-L**), 2026

P.7 Elvis Hsieh*, Wen-Han Hsieh*, Yen-Jen Wang*, Toru Lin, Jitendra Malik, Koushil Sreenath†, **Haozhi Qi**†. Learning Dexterous Manipulation Skills from Imperfect Simulations.
International Conference on Robotics and Automation (**ICRA**), 2026

P.8 Irmak Guzey, **Haozhi Qi**, Julen Urain, Changhao Wang, Jessica Yin, Krishna Bodduluri, Mike Lambeta, Lerrel Pinto, Akshara Rai, Jitendra Malik, Tingfan Wu, Akash Sharma, Homanga Bharadhwaj. Dexterity from Smart Lenses: Multi-Fingered Robot Manipulation with In-the-Wild Human Demonstrations.
International Conference on Robotics and Automation (**ICRA**), 2026

2025 P.9 **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.10 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.11 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.12 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.13 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.14 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.15 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.16 **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.17 **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.18 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.19 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.20 **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.21 **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.22 Yichao Zhou, **Haozhi Qi**, Jingwei Huang, Yi Ma. NeurVPS: Neural Vanishing Point Scanning via Conic Convolution.
Neural Information Processing Systems (**NeurIPS**), 2019

P.23 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.24 Yichao Zhou, **Haozhi Qi**, Yi Ma. End-to-End Wireframe Parsing.
International Conference on Computer Vision (**ICCV**), 2019

2017 P.25 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.26 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

2026 P.27 Sihang Li, Xiaofeng Guo, Jinkun Cao, Charlie Cheng, Ruihan Yang, Chen Feng†, Guanya Shi†, **Haozhi Qi†**. Learning Force-Reactive Humanoid Loco-Manipulation.
Tech Report, October 2026

P.28 Amber Xie, Jiawei Fu, Xiaofeng Guo, Carmelo Sferrazza†, Guanya Shi†, **Haozhi Qi†**. DexPort: A Hand-Held Skill Interface for Dexterous Hand Data Collection.
Tech Report, October 2026

P.29 Ying Yuan, David Held, Jitendra Malik, **Haozhi Qi**. Force-Modulated Dexterity: Unified Compliance for Contact-Rich Manipulation.
Tech Report, October 2026

P.30 Yen-Jen Wang*, Haozhe Jiang*, Shuying Deng*, Haoru Xue, Weirui Ye, Rocky Duan, Nika Haghtalab, S. Shankar Sastry, Pieter Abbeel†, **Haozhi Qi†**. Reconstruct, Practice, Go Real: Guided Self-Improvement for Embodied Agents.
Tech Report, October 2026

P.31 Yulin Liu, Lai Wei, Yen-Jen Wang, Akash Sharma, Pieter Abbeel, Henrik I. Christensen, **Haozhi Qi**. GOTT: Object-centric Dexterous Manipulation with a Reusable Cross-Embodiment Primitive.
Tech Report, October 2026

P.32 Tara Sadjadpour, Siming He, C.K. Wolfe, **Haozhi Qi**, Lea Wilken, S. Shankar Sastry, Claire Tomlin†, Jitendra Malik†. Morphometric Imitation: From Morphology and Contact Aware Hand Retargeting to Sim-to-Real Visuomotor Policy.
Tech Report, September 2026

2024 P.33 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.34 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

2026 Sensing for Dexterity: Learning from Simulation and Human Data
Cornell AI Seminar
IROS 2026 Workshop on Sensors and Actuators for Dexterous Manipulation
IROS 2026 Workshop on Beyond Exteroception: Interoceptive Perception for Resilient Robotics

Multiple Paths to Data for Dexterous Manipulation
RSS 2026 Workshop on Data-Centric Robotics

Robustness at Contact: Multisensory Feedback for Dexterous Manipulation
ICRA 2026 Workshop on Manipulation Robustness

Exploring Diverse Paths to Dexterous Manipulation
Duke University
University of North Carolina at Chapel Hill

2025 The Atomic Skill Approach to Robotic Dexterity
ELLIIT Symposium and Focus Period on Robot Learning
UT Austin RPL Seminar
UC Berkeley EMBER Seminar Series

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

2025 Sim2Real: The Winding but Necessary Road to Dexterity
[UChicago] [CMSC 20600] "Introduction to Robotics" by Prof. Sarah Sebo
[UPenn] [ESE 6510] "Physical Intelligence: Science and Systems" by Prof. Antonio Loquercio

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

2026 [IROS] Sensors and Actuators for Dexterous Manipulation:
Bridging Hardware and Application Needs
[IROS] Scalable Tactile Sensing for Dexterous Manipulation
[CoRL] 3rd Workshop on Dexterous Manipulation:
Full-Stack Robotics on Learning and Design
[RSS] Workshop on Dexterous Manipulation: Scalable Learning for Human-Level Skills
[RSS] Tactile Sensing for Robotic Foundation Models
[ICRA] Dexterity with Multifingered Hands: Hardware, Sensing, and Skills
[ICRA] ViTac Workshop: Learning to See and Feel: Vision–Tactile Synergy for Embodied AI

2025 [CoRL] Dexterous Manipulation: Learning and Control with Diverse Modalities
[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

Area Chair / Associate Editor

Area Chair	RSS, CoRL, NeurIPS
Associate Editor	Humanoids, ICRA, T-RL

Reviewer

Robotics	ICRA, CoRL, RSS, IROS, RA-L, T-RO, IJRR, Humanoids, Science Robotics
Vision	CVPR, ICCV, ECCV, T-PAMI, IJCV
Learning	ICLR, ICML, NeurIPS, TMLR, AAAI

Community Service

2026	**PhD Admissions Committee**, UChicago
2024	**Faculty Hiring Student Committee**, UC Berkeley
2021 - 2023	**Mentor**, Undergrad from Underrepresented Backgrounds
2020	**Graduate Admissions Committee**, UC Berkeley