

Carl Qi

Gates Dell Complex
2317 Speedway
Austin, TX, 78712

Website: <https://carl-qi.github.io>
Email: carlq@utexas.edu

Education

University of Texas at Austin <i>Ph.D. in Electrical & Computer Engineering</i>	August 2023 – Present GPA: 4.0
Carnegie Mellon University <i>M.S. in Machine Learning</i>	August 2021 – December 2022 GPA: 3.96
University of California, Berkeley <i>B.A. in Computer Science, B.A. in Applied Mathematics</i>	August 2017 – August 2021 GPA: 3.976 (Summa Cum Laude)

Research Experience

MIDI Lab, UT Austin <i>Graduate Student Researcher</i> <ul style="list-style-type: none">Work with Prof. Amy Zhang on improving generalization of reinforcement learning algorithms	Austin, Texas August 2023 – Present
The Robotics Institute, Carnegie Mellon University <i>Graduate Student Researcher</i> <ul style="list-style-type: none">Worked with Prof. David Held on computer vision and machine learning for robotic manipulationConducted research on policy training and long horizon reasoning for deformable object manipulationFirst authored multiple papers in major conferences and got media coverage in the Washington Post	Pittsburgh, PA August 2021 – June 2023
Berkeley Artificial Intelligence Research (BAIR) <i>Undergraduate Student Researcher</i> <ul style="list-style-type: none">Worked with Prof. Pieter Abbeel and Prof. Aditya Grover on robust imitation learning	Berkeley, CA April 2020 – April 2021

Industry Experience

UC Berkeley Electrical Engineering and Computer Science (EECS) <i>Instructor CS188 – Intro to AI</i> <ul style="list-style-type: none">Gave 25 lectures on fundamental AI techniques such as reinforcement learning to 250+ studentsRecruited and led 20 staff members to develop course materials: 2 exams, 5 projects and 10 homeworkInvented policies that facilitated remote learning to accommodate students from 6 different time zones	Berkeley, CA June 2021 – August 2021
Goldman Sachs <i>Quantitative Strategist Intern</i> <ul style="list-style-type: none">Undertook backend development in a digital storefront that delivers cross-asset access to global marketsDeveloped 2 production-level endpoints that allowed investors to assess risk profile in various scenariosIntegrated the endpoints with an open-source Python library that resulted in 100+ client visits per day	New York City, NY July 2020 – August 2020

Selected Publications

- [1] Carl Qi, Dan Haramarti, Tal Daniel, Aviv Tamar, and Amy Zhang. “EC-Diffuser: Multi-Object Manipulation via Entity-Centric Behavior Generation”. In: *The Thirteenth International Conference on Learning Representations*. 2025. URL: <https://openreview.net/forum?id=o3pJU5QCtv>.
- [2] Carl Qi, Yilin Wu, Lifan Yu, Haoyue Liu, Bowen Jiang, Xingyu Lin, and David Held. “Learning Generalizable Tool-use Skills through Trajectory Generation”. In: *2024 IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*. 2024, pages 2847–2854. DOI: 10.1109/IROS58592.2024.10801653.
- [3] Xingyu Lin*, Carl Qi*, Yunchu Zhang, Yunzhu Li, Zhiao Huang, Katerina Fragkiadaki, Chuang Gan, and David Held. “Planning with Spatial-Temporal Abstraction from Point Clouds for Deformable Object Manipulation”. In: *6th Annual Conference on Robot Learning*. 2022. URL: <https://openreview.net/forum?id=tyxyBj2w4vw>.
- [4] Carl Qi, Xingyu Lin, and David Held. “Learning Closed-Loop Dough Manipulation Using a Differentiable Reset Module”. In: *IEEE Robotics and Automation Letters* 7.4 (2022), pages 9857–9864. DOI: 10.1109/LRA.2022.3191239.

Awards & Honors

Qualcomm Innovation Fellowship Finalist <i>Qualcomm</i>	2023
2nd Place Winner of East Coast Regional Datathon <i>Citadel Securities</i>	2021
2nd Place Winner in Cisco EN Hackathon <i>Cisco</i>	2019
2nd Place Winner in Sodahacks <i>University of California, Berkeley</i>	2018
1st Prize in Beijing High School Mechanics Contest <i>Chinese Society of Physics</i>	2015

Teaching

10-418/618: ML for Structured Data <i>TA</i>	Carnegie Mellon University Spring 2022
10-725: Convex Optimization <i>TA</i>	Carnegie Mellon University Fall 2021
CS188: Artificial Intelligence <i>Instructor</i>	Univeristy of California, Berkeley Summer 2021
CS188: Artificial Intelligence <i>TA</i>	Univeristy of California, Berkeley Spring 2021
CS188: Artificial Intelligence <i>TA</i>	Univeristy of California, Berkeley Fall 2020
CS188: Artificial Intelligence <i>TA</i>	Univeristy of California, Berkeley Spring 2020
CS188: Artificial Intelligence <i>TA</i>	Univeristy of California, Berkeley Fall 2019