

Carl Qi

4500 Centre Ave
Pittsburgh, PA, 15213

Website: <https://carl-qi.github.io>
Email: hanwenq@andrew.cmu.edu

Education

Carnegie Mellon University <i>M.S. in Machine Learning</i>	August 2021 – Present GPA: 3.90
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

The Robotics Institute, Carnegie Mellon University <i>Graduate Student Researcher</i>	Pittsburgh, PA August 2021 – Present
<ul style="list-style-type: none">• Work with Prof. David Held on computer vision and machine learning for robotic manipulation• Conduct research on policy training and long horizon reasoning for deformable object manipulation• First authored multiple papers in major conferences and got media coverage in the Washington Post	
Berkeley Artificial Intelligence Research (BAIR) <i>Undergraduate Student Researcher</i>	Berkeley, PA April 2020 – April 2021
<ul style="list-style-type: none">• Worked with Prof. Pieter Abbeel and Prof. Aditya Grover on robust imitation learning• Designed and implemented all experiments that improved existing SOTA performance by 35%	

Industry Experience

UC Berkeley Electrical Engineering and Computer Science (EECS) <i>Instructor CS188 – Intro to AI</i>	Berkeley, CA June 2021 – August 2021
<ul style="list-style-type: none">• Gave 25 lectures on fundamental AI techniques such as reinforcement learning to 250+ students• Recruited and led 20 staff members to develop course materials: 2 exams, 5 projects and 10 homework• Invented policies that facilitated remote learning to accommodate students from 6 different time zones	
Goldman Sachs <i>Quantitative Strategist Intern</i>	New York City, NY July 2019 – August 2019
<ul style="list-style-type: none">• Undertook backend development in a digital storefront that delivers cross-asset access to global markets• Developed 2 production-level endpoints that allowed investors to assess risk profile in various scenarios• Integrated the endpoints with an open-source Python library that resulted in 100+ client visits per day	

Publications & Preprints

- [1] 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>.
- [2] Carl Qi, Pieter Abbeel, and Aditya Grover. “Imitating, Fast and Slow: Robust learning from demonstrations via decision-time planning”. In: *arXiv preprint arXiv:2204.03597* (2022).
- [3] 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

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