Carl Qi

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Education

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

Research Experience

The Robotics Institute, Carnegie Mellon University — Pittsburgh, PA

Graduate Student Researcher — **August 2021 – April 2022**
- 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) — Berkeley, CA

Undergraduate Student Researcher — **April 2020 – April 2021**
- 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) — Berkeley, CA

Instructor | CS188 – Intro to AI — **June 2021 – August 2021**
- 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 — New York City, NY

Quantitative Strategist Intern — **July 2020 – August 2020**
- 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
Citadel Securities   **2021**

2nd Place Winner in Cisco EN Hackathon
Cisco   **2019**

2nd Place Winner in Sodahacks
University of California, Berkeley   **2018**

1st Prize in Beijing High School Mechanics Contest
Chinese Society of Physics   **2015**

Teaching

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