

# CHENGRUI QU

+1-626-648-7283 | [cqu@caltech.edu](mailto:cqu@caltech.edu) | [crqu.github.io](https://github.com/crqu)  
1200 E California Blvd, Pasadena, CA, 91125

## RESEARCH INTERESTS

- Theoretical Foundations of Decision-Making
- Multi-Agent Systems
- Reasoning Abilities of Large Language Models

## EDUCATION

- **California Institute of Technology** Sep. 2025 - Jun. 2030(expected)  
PhD student at Computing+Mathematical Sciences  
Pasadena, CA, USA  
◦ Advisor: Prof. Adam Wierman, Prof. Eric Mazumdar
- **California Institute of Technology** Jun. 2024 - Sep. 2024  
Summer Undergraduate Research Fellowships (SURF)  
Pasadena, CA, USA  
◦ Advisor: Prof. Adam Wierman
- **Peking University** Sep. 2021 - Jul. 2025  
Major: Theoretical and Applied Mechanics (Applied Mathematics)  
Beijing, China  
◦ B.Sc. (Honors), **Rank: 1/39**

## PUBLICATIONS & PREPRINTS

- **C. Qu**, L. Shi, K. Panaganti, P. You, and A. Wierman. [Hybrid Transfer Reinforcement Learning: Provable Sample Efficiency from Shifted-Dynamics Data](#), AISTATS 2025 (**Oral, top 2%**)
- K. Mukhi, **C. Qu**, P. You, and A. Abate. [Robust Aggregation of Electric Vehicle Flexibility](#), ACM HSCC 2025 (**Best Poster Award** in DTU PES Summer School 2024)
- **C. Qu**, H. Jia and P. You. [Decision-Dependent Distributionally Robust Optimization with Application to Dynamic Pricing](#), IEEE CDC 2025
- Y. As, **C. Qu**, B. Unger, D. Kang, M. Hart, L. Shi, S. Coros, A. Wierman and A. Krause. [SPiDR: A Simple Approach for Zero-Shot Safety in Sim-to-Real Transfer](#), NeurIPS 2025
- **C. Qu**, K. Panaganti, C. Yeh, and A. Wierman. Distributionally Robust Cooperative Multi-Agent Reinforcement Learning via Robust Value Factorization. In Submission to ICLR 2026

## ONGOING PROJECTS

- **Co-Training for Multi-Agent Large Language Model Systems** 2025  
Instructors: Prof. Laixi Shi, JHU; Advisor: Prof. Eric Mazumdar, Caltech  
◦ Designed a co-training framework for multi-agent large language model systems.  
◦ Developed a multi-agent co-training pipeline based on verl.

## TEACHING EXPERIENCES

- **Principle of Economics (English taught)** Spring 2024  
TA, National School of Development, Peking University
- **International Trade (English taught)** Spring 2024  
TA, National School of Development, Peking University
- **Reinforcement Learning Reading Group** Fall 2023-Spring 2024  
Co-organizer, Peking University
- **Power System Reading Group** Fall 2023-Spring 2024  
Co-organizer, Peking University
- **Financial Economics Reading Group** Summer 2022  
Co-organizer, Peking University

## HONORS AND AWARDS

- **Outstanding Graduate of Peking University** 2025
- **Li Yanhong Scholarship (Top undergraduate student award)** 2024
- **NSFC 1st Youth Student Basic Research Grant** 2023
- **National Scholarship (Top undergraduate student award)** 2023
- **Pacemaker to Merit Student, Peking University** 2023
- **The First Prize in 14th National Zhou Peiyuan Mechanics Competition (Top 0.3%)** 2023
- **Merit Student, Peking University** 2022
- **The First Prize in 37th Chinese Physics Olympiad (Jiangsu Province)** 2020
- **The First Prize in 34th Chinese Chemistry Olympiad (Jiangsu Province)** 2020
- **The First Prize in 36th Chinese Maths Olympiad (Jiangsu Province)** 2020

## PROFESSIONAL SKILLS

**Programming Skills:** C++, Python, MATLAB, CUDA, Shell

**Leadership:** President of the Jiangsu Cultural Association, Peking University