

CHENGRUI QU

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1200 E California Blvd, Pasadena, CA, 91125

RESEARCH INTERESTS

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

EDUCATION

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

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

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

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

HONORS AND AWARDS

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

PROFESSIONAL SKILLS

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

Leadership: President of the Jiangsu Cultural Association, Peking University