CHENGRUI QU

+1-626-648-7283 | qcr2021@stu.pku.edu.cn | crqu.github.io
5 Yiheyuan Rd, Haidian District, Beijing, China, 100871

Research interest

Theoretical Foundations of Reinforcement Learning
Algorithms for Multi-agent Systems
Deployment of Machine Learning in real world

Education

- **California Institute of Technology (Caltech)** *Jun. 2024 - Sep. 2024*
  Summer Undergraduate Research Fellowships (SURF) Pasadena, CA, USA
  ◦ Advisor: Adam Wierman
- **Peking University** *Sep. 2021 - Jun. 2025 (expected)*
  Major: Theoretical and Applied Mechanics Beijing, China
  ◦ GPA: 3.894/4.0 Average Score: 92.5/100 **Rank: 1/39**

Publications & Preprints

- K. Mukhi, **C. Qu**, P. You, and A. Abate. Distributionally robust aggregation of electric vehicle flexibility, 2024 (in submission, won **Best Poster Award** in DTU PES Summer School 2024)

Research Projects (ongoing)

- **Hybrid Transfer Reinforcement Learning: Provable Sample Efficiency From Shifted-dynamics Data** *2024*
  ***Instructor**: Laixi Shi, Kishan Panaganti Badrinath; **Advisor**: Adam Wierman*
- **Distributionally Robust Online Pricing with Price-aware Demand** *2024*
  ***Advisor**: Pengcheng You*

Honors and Awards

- **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*

Teaching Experience

- **Principle of Economics** *Spring 2024*
  TA, National School of Development, Peking University
- **International Trade** *Spring 2024*
  TA, National School of Development, Peking University

Invited Talks

- **Hybrid Transfer Reinforcement Learning: Provable Sample Efficiency From Shifted-dynamics Data** *Sep. 2024*
  ORSC Data Science 2024
- **Distributionally robust Aggregation of Electric Vehicle Flexibility** *Mar. 2024*
  School of Data Science, The Chinese University of Hong Kong, Shenzhen

Additional Information

Programming Skills: C++, Python, MATLAB, CUDA
Leadership: President of the Jiangsu Cultural Association, Peking University

References

1. **Adam Wierman**
   Carl F Braun Professor, Department of Computing and Mathematical Sciences
   California Institute of Technology
   Email: adamw@caltech.edu
2. **Pengcheng You**
   Assistant Professor, Department of Industrial Engineering and Management
   Peking University
   Email: pcyou@pku.edu.cn