# Chenkai Yu

## Education

- 2021–2026 **PhD in Decision, Risk and Operations**, *Columbia University*, New York, USA Columbia Business School
- 2017–2021 **BE in Computer Science and Technology**, *Tsinghua University*, Beijing, China Institute for Interdisciplinary Information Sciences (Yao Class)

### Research Visits

- 01–08/2020 **Visiting Undergraduate Researcher**, *California Institute of Technology*, Pasadena, CA Advisor: Adam Wierman
- 06–08/2019 **Visiting Scholar**, *University of Michigan*, Ann Arbor, MI Advisor: Grant Schoenebeck

# Industry Experience

- 06–08/2024 **PhD Software Engineer Intern**, *Uber Technologies, Inc.*, San Francisco, CA, USA Developed machine learning models to estimate trip completion rate.
- 01–02/2019 **Machine Learning Researcher**, *Tencent AI Lab*, Shenzhen, China Worked on learning feature-disentangled embeddings for images in unsupervised settings.

## Research Areas

Game Theory, Market Design, Optimization, Online Learning, Statisitcal Learning

# Working Papers

Chenkai Yu, Hongyao Ma. Iterative Network Pricing for Ridesharing Platforms. arXiv preprint arXiv:2311.08392. Submitted to Management Science.

Chenkai Yu, Arpit Agarwal, Hongyao Ma. Who Ate the Lunch? A Variational Bayesian Algorithm for Identifying Refund Hunters.

## **Publications**

(The \* sign denotes alphabetical order.)

Chenkai Yu, Hongyao Ma, Adam Wierman. Price Cycles in Ridesharing Platforms. In *International Conference on Web and Internet Economics*, **WINE**, 2023.

Chenkai Yu, Guanya Shi, Soon-Jo Chung, Yisong Yue, Adam Wierman. Competitive Control with Delayed Imperfect Information. In *American Control Conference*, **ACC**, 2022.

Tongxin Li, Ruixiao Yang, Guannan Qu, Guanya Shi, Chenkai Yu, Adam Wierman, Steven Low. Robustness and consistency in linear quadratic control with untrusted predictions. In *Proceedings of the ACM on Measurement and Analysis of Computing Systems*, **SIGMET-RICS**, 2022.

Guannan Qu, Chenkai Yu, Steven Low, Adam Wierman. Exploiting linear models for model-free nonlinear control: A provably convergent policy gradient approach. In *IEEE Conference on Decision and Control*, **CDC**, 2021.

Grant Schoenebeck\*, Chenkai Yu\*, Fang-Yi Yu\*. Timely Information from Prediction Markets. In *Proceedings of the 20th International Conference on Autonomous Agents and MultiAgent Systems*, **AAMAS**, 2021.

Chenkai Yu, Guanya Shi, Soon-Jo Chung, Yisong Yue, Adam Wierman. The Power of Predictions in Online Control. In *Advances in Neural Information Processing Systems*, **NeurIPS**, 2020.

## **Awards**

- 06/2023 Deming Doctoral Fellowship, Columbia Business School
- 09/2020 Andrew C. Yao Award, Tsinghua University
- 10/2018 **National Scholarship**, *Tsinghua University*
- 07/2016 Silver Prize in National Olympiad in Informatics (NOI), China

#### Presentations

- 07/2024 INFORMS RMP Conference, Los Angeles, CA
- 07/2024 INFORMS MSOM Conference, Minneapolis, MN
- 05/2024 Deming Doctoral Fellowship Seminar, Columbia Business School, New York, NY
- 01/2024 RSRG/FALCON Tea, Caltech, Pasadena, CA
- 12/2023 Conference on Web and Internet Economics (WINE), Shanghai, China
- 10/2023 INFORMS Annual Meeting, Phoenix, AZ
- 10/2022 INFORMS Annual Meeting, Indianapolis, IN
- 09/2022 DRO Brown Bag Seminar, Columbia Business School, New York, NY
- 06/2022 American Control Conference, Atlanta, GA
- 10/2021 **INFORMS Annual Meeting**, Online
- 05/2021 International Conference on Autonomous Agents and Multiagent Systems, Online
- 12/2020 Conference on Neural Information Processing Systems (NeurIPS), Online
- 08/2020 Workshop on Mechanism Design for Social Good, Online

# Teaching

- Summer 2025 Teaching Assistant for B5102 Operations Management
  - Spring 2025 Teaching Assistant for B5102 Operations Management
    - Fall 2024 Teaching Assistant for B6100 Managerial Statistics
  - Spring 2024 Teaching Assistant for B5102 Operations Management
  - Spring 2024 Teaching Assistant for B6100 Managerial Statistics
    - Fall 2023 Teaching Assistant for B6100 Managerial Statistics
  - Spring 2023 Teaching Assistant for B5102 Operations Management
  - Spring 2023 Teaching Assistant for B6100 Managerial Statistics

# Advising

04–12/2023 Co-advising Barnard College student Jingwen Zhang