LINDA CAI

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EDUCATION

Ph.D. in Computer Science, Princeton University *2020-2024*
Thesis: Algorithmic Decision Making with Imperfect Information and Practical Irrationality
Advisor: Matt Weinberg

M.S. in Computer Science, Princeton University *2018-2020*
Advisor: Matt Weinberg

B.S. in Computer Science and Mathematics, UIUC *2014-2018*
Graduated Summa Cum Laude

FELLOWSHIPS AND AWARDS

- **School of Engineering and Applied Science Award for Excellence** awarded for outstanding performance in academics, research endeavors, and pedagogical contributions 2023
- **Siebel Scholar** awarded for academic excellence and demonstrated leadership 2023
- **Chainlink Labs Research Fellowship** awarded by Chainlink Labs 2021
- **Francis Robbins Upton Fellowship** awarded by Princeton School of Engineering 2020
- **Bronze Tablet Award** for ranking in the top three percent at UIUC 2018
- **Jeffry P. Blahut Memorial Scholarship** for academic achievements in CS 2017
- **Franz Hohn and J.P. Nash Scholarship** for outstanding performance in applied and computational mathematics 2016

EMPLOYEMENTS AND INTERNSHIPS

- **Postdoctoral Researcher at UC Berkeley** **Fall 2024-Present**
  Supervisor: Michael I. Jordan
- **Research Internship at Athena Research Center (Greece)** **Summer 2023**
  Supervisor: Costis Daskalakis
- **Research Internship at Microsoft Research New England** **Summer 2022**
  Supervisor: Brendan Lucier
- **Software Engineering Internship at Jump Trading** **Summer 2017**

CONFERENCE PUBLICATIONS AND PREPRINTS

- *Cost-aware Stopping for Bayesian Optimization* [link]
  Qian Xie*, Linda Cai*, Alexander Terenin, Peter I. Frazier, Ziv Scully.
  In submission to the 39th Annual Conference on Neural Information Processing Systems (**Neurips 2025**)
- *Faster Diffusion-based Sampling with Randomized Midpoints: Sequential and Parallel* [link]
  Shivam Gupta, Linda Cai, Sitan Chen.
  In proceeding of the 13th International Conference on Learning Representations. **ICLR 2025**

- *Profitable Manipulations of Cryptographic Self-Selection are Statistically Detectable* [link]
  Linda Cai, Jingyi Liu, S. Matthew Weinberg, Chenghan Zhou.
  In proceeding of international conference on Advances in Financial Technologies. **AFT 2024**
- *Bundling in Oligopoly: Revenue Maximization with Single-Item Competitors* [link]
  Moshe Babaioff, Linda Cai, Brendan Lucier.
  In proceeding of the 25th ACM Conference on Economics and Computation. **EC 2024**
- *Optimal Stopping with Multi-Dimensional Comparative Loss Aversion* [link]
  Linda Cai, Joshua Gardner, S. Matthew Weinberg.
  In Proceedings of the 19th Conference on Web and Internet Economics. **WINE 2023**
- *Selling to Multiple No-Regret Buyers* [link]
  Linda Cai, S. Matthew Weinberg, Evan Wildenhain, Shirley Zhang.
  In Proceedings of the 19th Conference on Web and Internet Economics. **WINE 2023**
- *Pandora's Problem with Nonobligatory Inspection: Optimal Structure and a PTAS.* [link]
  Hedyeh Beyhaghi, Linda Cai.
  In Proceedings of The 55th Annual ACM Symposium on Theory of Computing. **STOC 2023**
- *The Short-Side Advantage in Random Matching Markets.* [link]
  Linda Cai, Clayton Thomas.
  In Proceedings of the 5th Symposium on Simplicity in Algorithms. **SOSA 2022**
- *99% Revenue with Constant Enhanced Competition.* [link]
  Linda Cai, Raghuvansh R. Saxena.
  In Proceedings of The 22nd ACM Conference on Economics and Computation. **EC 2021**
- *Implementation in Advised Strategies: Welfare Guarantees from Posted-Price Mechanisms when Demand Queries are NP-hard.* [link]
  Linda Cai, Clayton Thomas, S. Matthew Weinberg.
  In Proceedings of the 11th Innovations in Theoretical Computer Science. **ITCS 2020**
- *Baechi: fast device placement of machine learning graphs.* [link]
  Beomyeol Jeon, Linda Cai, Pallavi Srivastava, Jintao Jiang, Xiaolan Ke, Yitao Meng, Cong Xie, Indranil Gupta.
  In Proceedings of ACM Symposium on Cloud Computing. **SOCC 2020**

SURVEYS

- *Recent Developments in Pandora's Box Problem: Variants and Applications.* [link]
  Hedyeh Beyhaghi, Linda Cai.
  ACM SIGecom Exchanges Vol. 21.1. Spring 2023

ACADEMIC SERVICES

- **Program Committee** for EC (2023, 2025), WINE (2024)
- **Conference Referee** for STOC (2022, 2024, 2025), FOCS (2025), SODA (2021, 2023, 2024), ITCS (2021-2024), WINE (2019-2024).

TEACHING EXPERIENCE

- **Teaching Assistant**, New Horizons in TCS Summer School [link] Summer 2023
- **Teaching Assistant**, Princeton University
  - COS 521 Advanced Algorithms Design Fall 2021
  - COS 445 Economics and Computing (Recitation Leader) Spring 2020

  - COS 451 Computational Geometry — Fall 2019
  - COS 445 Economics and Computing (Recitation Leader) — Spring 2019
  - COS 126 Introduction to Computer Science (Recitation Leader) — Fall 2018
- **Course Assistant**, University of Illinois at Urbana Champaign
  - CS 374 Algorithms and Models of Computation — Fall 2017 - Spring 2018
  - CS 126 Intro to Computer Science — Spring 2015

SKILLS

- **Programming Languages**: Python, C++, Java, Haskell
- **Software Engineering Frameworks**: TensorFlow, PyTorch