Su Jia

CONTACT

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EMPLOYMENT

Cornell University, NY   2022 - Present

- Postdoc (Assistant Research Professor), Center for Data Science for Enterprise and Society

EDUCATION

Carnegie Mellon University, Pittsburgh, PA   2017–2022

- Ph.D. in Algorithms, Combinatorics and Optimization (ACO)

- Home Department: Tepper School of Business

- Thesis: *Learning and Earning Under Uncertainty and Noise*

- Committee: R. Ravi (Chair), Andrew Li, Alan Scheller-Wolf and Sridhar Tayur

Stony Brook University, Stony Brook, NY   2014–2017

- M.S. in Applied Mathematics and Statistics

Tsinghua University, Beijing, China PR   2010–2014

- B.S. in Mathematics

AWARDS

- Winner, George B. Dantzig Dissertation Award in Operations Research and Management Science (INFORMS), 2022

- Gerald L. Thompson Doctoral Dissertation Award in Management Science (CMU), 2022

- Winner, Pierskalla Best Paper Award in Health Applications (INFORMS), 2021

- Egon Balas Award for Best Student Paper in Operations Research (CMU), 2020

- William Larimer Mellon PhD Fellowship (CMU), 2017-2022

RESEARCH PAPERS

In reverse chronological order. "$\star$" means the authors are listed alphabetically.

- **Mixing Is All You Need: Experimentation Under Non-sparse Interference**
  Su Jia, Nathan Kallus and Christina Lee Yu
  In preparation

- **Experimentation Under Dynamic Interference**
  Su Jia, Peter Frazier, Nathan Kallus and Christina Lee Yu
  In preparation

- **Clustered Switchback Experiments: Near-Optimal Rates Under Spatiotemporal Interference**
  Su Jia, Nathan Kallus and Christina Lee Yu
  Under review

- **From Stream to Pool: Dynamic Pricing for Customers with Diminishing Marginal Utility**
  ($\star$) Titing Cui, **Su Jia** and Thomas Lavastida
  Under review

- **Multi-Armed Bandit with Interference**
  Su Jia, Peter Frazier and Nathan Kallus
  Under Review

- **Short-Lived High-Volume Bandits**
  Su Jia, Nishant Oli, Ian Anderson, Paul Duff, Andrew Li and R. Ravi
  Preliminary version appeared in the Proceedings of ICML'23
  Major revision, *Operations Research*

- **Smooth Non-stationary Bandits**
  Su Jia, Qian Xie, Nathan Kallus and Peter Frazier.
  Preliminary version appeared in the Proceedings of ICML'23
  Major/Immediate revision, *Operations Research*

- **Markdown Pricing for Unknown Parametric Demand Models**
  Su Jia, Andrew Li and R. Ravi
  Preliminary version appeared in the Proceedings of NeurIPS'22
  Major Revision, *Management Science*

- **Toward a Liquid Biopsy: Greedy Approximation Algorithms for Active Sequential Hypothesis Testing**
  ($\star$) Kyra Gan, **Su Jia**, Andrew Li and Sridhar Tayur
  Winner, 2021 Pierskalla Best Paper Award in Health Applications
  Preliminary version appeared in the proceedings of NeurIPS'21
  Accepted, *Management Science*

- **Effective Online Order Acceptance Policies For Omni-Channel Fulfillment.**
  ($\star$) **Su Jia**, Jeremy Karp, R. Ravi and Sridhar Tayur
  Published, *Manufacturing and Service Operations Management* (MSOM), 2022

- **Markdown Pricing Under Unknown Demand**
  ($\star$) Ningyuan Chen, **Su Jia**, Andrew Li and R. Ravi
  Egon Balas Award for Best Student Paper in Operations Research, 2020
  Preliminary version appeared in the Proceedings of NeurIPS'21
  Under Review, *Mathematics of Operations Research*

- **Optimal Decision Tree and Submodular Ranking with Noisy Outcomes**
  Su Jia, Fatemeh Navidi, Viswanath Nagarajan and R. Ravi
  Preliminary version appeared in the proceedings of NeurIPS'19
  Accepted, *Journal of Machine Learning Research*, 2024

- **Competitive Analysis for Online Scheduling in Software-Defined Optical WAN**
  Su Jia, Xin Jin, Golnaz Ghasemiesfeh, Jiaxin Ding and Jie Gao
  IEEE International Conference on Computer Communications 2017 (INFOCOM'17)

- **Network Optimization on Partitioned Pairs of Points.**
  Esther Arkin, Aritra Banik, Paz Carmi, Gui Citovsky, **Su Jia**, Matthew Katz, Tyler Mayer and Joseph S.B. Mitchell
  The 28th International Symposium on Algorithms and Computation (ISAAC'17)

- **Exact and Approximation Algorithms for Time-Window TSP**
  Su Jia, Jie Gao, Joseph S.B. Mitchell and Lu Zhao
  International Workshop on the Algorithmic Foundations of Robotics 2016 (WAFR'16)

TEACHING

- **MBA Mathematical Preparation (Session 3), Instructor**   June - July 2020
  Rating: 4.83 (respondents 6/23)

- **MBA Mathematical Preparation (Session 4), Instructor**   July - Aug 2020
  Rating: 4.31 (respondents 13/22)

- **MBA Mathematical Preparation (Session 3), Instructor**   June - July 2021
  Rating: 4.75 (respondents 23/45)

- **MBA Mathematical Preparation (Session 4), Instructor**   July - Aug 2021
  Rating: 4.89 (respondents 9/28)

- **As Teaching Assistant**
  - **Operations Management** (MBA Core),   Oct - Dec 2021
    with Prof. Sridhar Tayur
  - **Business Value Through Integrative Analytics** (MSBA),   June - Aug 2020
    with Prof. R. Ravi

- **Financial Optimization** (MSCF), Aug - Oct 2020
  with Prof. Javier Peña
- **Optimization in Finance** (MBA elective), Jan - Mar 2020
  with Prof. Gérard Cornuéjols
- **Financial Optimization** (MSCF), Aug - Oct 2019
  with Prof. Javier Peña
- **Business Value Through Integrative Analytics** (MSBA), June - Aug 2019
  with Prof. R. Ravi
- **Optimization** (MBA Core), Aug - Oct 2019
  with Prof. Fatma Kılınç-Karzan
- **Applications of Operations Research** (MBA elective), Jan - Mar 2019
  with Prof. Andrew A. Li
- **Applications of Operations Research** (MBA elective), Aug - Oct 2018
  with Prof. Andrew A. Li
- **Computational Geometry** Jan - May 2016
  with Prof. Joseph S. B. Mitchell
- **Network Flows** Sep - Dec 2015
  with Prof. Esther Arkin
- **Combinatorics** Jan - May 2015
  with Prof. Xinyun Chen
- **Combinatorics** Sep - Dec 2014
  with Prof. Alan Tucker