Steven Jecmen

Education Carnegie Mellon University, School of Computer Science

2019 - 2024

Ph.D. in Computer Science

Advisors: Fei Fang and Nihar B. Shah

University of Michigan - Ann Arbor, College of Engineering

2015 - 2019

B.S.E. in Computer Science, Minor in Economics

GPA: 4.0/4.0

Employment

Tower Research Capital, Quantitative Trader

2024 - present

Tower Research Capital, Quantitative Trader Intern

2023

Citadel, Software Engineering Intern

2018

Developed and tested a new R interface to the C++ market data layer used by quantitative researchers.

CME Group, Software Engineering Intern

2017

Designed a simulated market model and tested potential changes to the match engine to determine effects on the behavior and welfare of market participants.

Research Experience

Carnegie Mellon University, Graduate Research Assistant

2019 - 2024

Project: Making Peer Review Robust to Undesirable Behavior

Advisors: Fei Fang and Nihar B. Shah

Proposed practical methods for handling several different forms of malicious or undesirable behavior in scientific peer review using techniques from optimization, statistics, game theory, and causal inference. To mitigate collusion between reviewers and authors, provided efficient algorithms for finding high-quality randomized assignments, which have been deployed at several venues (including AAAI 2022-2023) and implemented at OpenReview.net.

University of Michigan, Research Assistant

2017 - 2019

Project: Bounding Regret in Empirical Games

Advisor: Michael Wellman

Developed an algorithm to efficiently bound the exploitability of candidate Nash equilibria in empirical games.

Research Publications

Steven Jecmen, Nihar B. Shah, Fei Fang, and Leman Akoglu. On the Detection of Reviewer-Author Collusion Rings From Paper Bidding. *Preprint*, 2024.

Yixuan Even Xu, **Steven Jecmen**, Zimeng Song, and Fei Fang. A One-Size Fits All Approach to Improving Randomness in Paper Assignment. In *The 37th Conference on Neural Information Processing Systems (NeurIPS)*, 2023.

Martin Saveski, **Steven Jecmen**, Nihar B. Shah, and Johan Ugander. Counterfactual Evaluation of Peer Review Assignment Strategies in Computer Science and Artificial Intelligence. In *The 37th Conference on Neural Information Processing Systems (NeurIPS)*, 2023. Also in *The 9th International Congress on Peer Review and Scientific Publication*, 2022 (Abstract).

Ryan Liu, **Steven Jecmen**, Vincent Conitzer, Fei Fang, and Nihar B. Shah. Testing for Reviewer Anchoring in Peer Review: A Randomized Controlled Trial. *Preprint*, 2023.

Steven Jecmen, Minji Yoon, Vincent Conitzer, Nihar B. Shah, Fei Fang. A Dataset on Malicious Paper Bidding in Peer Review. In *The Web Conference 2023 (WWW)*, 2023.

Steven Jecmen, Nihar B. Shah, Fei Fang, Vincent Conitzer. Tradeoffs in Preventing Manipulation in Paper Bidding for Reviewer Assignment. In *ML Evaluation Standards Workshop at ICLR*, 2022 **(Outstanding Paper Award)**.

Komal Dhull, **Steven Jecmen**, Pravesh Kothari, and Nihar B. Shah. Strategyproofing Peer Assessment via Partitioning: The Price in Terms of Evaluators' Expertise. In *The 10th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, 2022. Also in *Games, Agents and Incentives Workshop at AAMAS*, 2022; *The 9th International Congress on Peer Review and Scientific Publication*, 2022 (Abstract).

Steven Jecmen, Hanrui Zhang, Ryan Liu, Fei Fang, Vincent Conitzer, and Nihar B. Shah. Near-Optimal Reviewer Splitting in Two-Phase Paper Reviewing and Conference Experiment Design. In *The 10th AAAI Conference on Human Computation and Crowdsourcing (HCOMP)*, 2022 (Best Paper Honorable Mention). Also in *The 21st International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2022 (Extended Abstract).

Steven Jecmen, Hanrui Zhang, Ryan Liu, Nihar B. Shah, Vincent Conitzer, and Fei Fang. Mitigating Manipulation in Peer Review via Randomized Reviewer Assignments. In *The 34th Conference on Neural Information Processing Systems (NeurIPS)*, 2020. Also in *Incentives in Machine Learning Workshop at ICML*, 2020; *Games, Agents, and Incentives Workshop at AAMAS*, 2021; *International Workshop on Computational Social Choice*, 2021. **Implemented at OpenReview.net**; **deployed for paper assignments in various venues, including AAAI 2022, AAAI 2023, and KDD 2023.**

Steven Jecmen, Arunesh Sinha, Zun Li, and Long Tran-Thanh. Bounding Regret in Empirical Games. In *The 34th AAAI Conference on Artificial Intelligence (AAAI)*, 2020. Also in *Exploration in Reinforcement Learning Workshop at ICML*, 2018.

Awards and Honors

HCOMP 2022 Conference, Best Paper Honorable Mention	2022
ML Evaluation Standards Workshop at ICML 2022, Outstanding Paper Award	2022
National Science Foundation, Graduate Research Fellowship Honorable Mention	2021
University of Michigan, Distinguished Academic Achievement Award	2019

2018

Professional Service AAAI 2022 Conference on Artificial Intelligence, Workflow Chair

2021 - 2022

Designed the reviewer assignment procedure to provide high-quality assignments for more than 9000 papers while carefully mitigating potential malicious behavior by reviewers.

GameSec 2022 Conference, Workflow Chair	2022
NeurIPS 2023 Conference, Reviewer	2023
KDD 2023 Conference, Reviewer	2023
Games, Agents, and Incentives Workshop at AAMAS, Reviewer	2021, 2022, 2023
ML Evaluation Standards Workshop at ICML, Reviewer	2022
Carnegie Mellon MSCS Admissions Committee, Member	2020

Teaching

Carnegie Mellon University, Teaching Assistant

Experience

Advanced Topics in Machine Learning and Game Theory (17-759)

Graduate Artificial Intelligence (15-780) Spring 2022

University of Michigan, Teaching Assistant

Introduction to Operations Systems (EECS 482)

Fall 2018, Winter 2019

Fall 2022

Relevant

Carnegie Mellon University

Coursework

Statistical Methods in Machine Learning (36-708)

Intermediate Statistics (36-705) Convex Optimization (10-725)

Graduate Artificial Intelligence (15-780)

University of Michigan

Object-Oriented and Advanced Programming (EECS 381)

Introduction to Machine Learning (EECS 445)
Design and Analysis of Algorithms (EECS 586)

Skills

Technical skills: Python, NumPy/SciPy, Pandas, Gurobi, C/C++, Java, Git, LaTeX

Research areas: Game theory, optimization, statistics, causal inference, machine learning