Sujai Hiremath

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LinkedIn

Education

Cornell Tech | New York, NY　　　　2024 - 2028
PhD in Operations Research and Information Engineering | GPA: 3.9　*(expected)*
- Areas: AI, Causal Discovery, Causal Inference

Cornell University | Ithaca, NY　　　　2023 - 2024
PhD in Operations Research and Information Engineering

California Institute of Technology | Pasadena, CA　　　　2019 - 2023
BS in Applied and Computational Mathematics | GPA: 4.0
- Areas: ML, Mathematical Modelling, Data Analysis

Publications and Preprints

1. **Hiremath, S**, et al. Hybrid Top-Down Global Causal Discovery with Local Search for Linear and Nonlinear Additive Noise Models. *Thirty-Eighth Annual Conference on Neural Information Processing Systems*, 2024.

2. **Hiremath, S**, et al. LoSAM: Local Search in Additive Noise Models with Unmeasured Confounders, a Top-Down Global Discovery Approach. 2024. (Under Review)

Fellowships and Awards

- **Cornell Fellowship** ($16,247), Cornell University　　　　09.2023
- **Summer Undergraduate Research Fellowship** ($7,740), Caltech　　　　04.2021
- **Summer Undergraduate Research Fellowship** ($7,740), Caltech　　　　04.2020
- **Thomas J. Watson Fellowship Scholar** ($6,000), IBM　　　　2019-22
- **National Merit Scholar** ($2,500), NMSC　　　　06.2019

Work Experience

PhD Student Researcher | Cornell Tech　　　　11.2023 - Present
- PIs: Dr. Kyra Gan, Dr. Promit Ghosal. Investigating efficient statistical inference, scalable causal discovery, and federated AI tools for high-risk decision-making.
- Wrote two first author papers, one accepted and the other one is under review.

Public Policy Research Intern | PUSD + Caltech　　　　10.2022 - 03.2023
- PI: Dr. Adam Wierman. Used Python to perform data analysis on statistics from the Pasadena Unified School District 2022 school choice lottery.
- Recommended changes to the current school lottery process that helped promote equity and boost public school enrollment rates as measured in 2024.

Industry Research Intern | IpLearn　　　　06.2022 - 10.2022
- Manager: Peter Tong. Reviewed technical documents and prepared weekly reports on Multi-Edge-Access, 5G and various other data transmission technologies.

Academic Research Assistant | Caltech　　　　08.2021 - 10.2021
- PI: Shunto Kobayashi. Used R to build a ML tool for classification of website URLs into the industry of the corresponding company who owns the URL.

Industry Research Intern | IpLearn　　　　06.2021 - 10.2021
- Manager: Peter Tong. Reviewed technical documents and prepared weekly reports on various network technologies underlying Amazon Sidewalk.

Academic Research Intern | Yahoo! + Caltech　　　　08.2021 - 10.2021
- PIs: Dr. Matthew Shum, Dr. Miguel Alcobendas. Used R to analyze ad auction data from Yahoo! to investigate the role of rebroadcasters in online ad markets.

Academic Research Intern | Caltech　　　　08.2021 - 10.2021
- PIs: Dr. Franca Hoffmann, Dr. Mason Porter, Heather Zinn Brooks. Developed bounded confidence models for opinion dynamics on social media networks to account for heterogeneous media influence, implemented in MATLAB.

Community Service

Cornell Tech PhD Mentor | Cornell Tech   09.2024 - Present
- Mentoring a first-year PhD student, helping them to adjust to PhD life.

Cornell Tech Student Wellness Advisor | Cornell Tech   09.2024 - Present
- Supporting Cornell Tech students by developing various wellness initiatives.

Head Peer Advocate | Caltech   01.2023 - 06.2023
- Supported various students as a trusted listener when they were in distress throughout the year. Lead advertising campaigns for the Caltech Counseling Services.

Caltech Y Rise Mentor | Caltech   10.2021 - 06.2023
- Tutored public school students struggling with math.

Deans Tutor | Caltech   10.2021 - 06.2023
- Tutored freshmen and sophomore Caltch students struggling in their classes.

Peer Advocate | Caltech   10.2021 - 06.2022
- Was trained in counseling skills over a semester. Supported various students as a trusted listener when they were in distress throughout the year.

Teaching

Applied Machine Learning TA | Cornell Tech   08.2024 - Present
- Prof: Dr. Kyra Gan. Holding weekly office hours (OH), preparing course materials.

Probability/Statistics TA | Cornell University   01.2024 - 05.2024
- Prof: Dr. Johannes Wissel. Graded homework, held weekly OH and discussion, organized midterm and finals.

Statistical Inference Head TA | Caltech   03.2023 - 06.2023
- Prof: Dr. Kostia Zuev. Graded homework, held weekly OH and discussions, organized midterm and finals, onboarded and coordinated new TAs.

Markov Chains TA | Caltech   01.2023 - 03.2023
- Prof: Dr. Houman Owhadi. Graded homework, held weekly OH and discussion.

Intro to Applied Math II TA | Caltech   03.2022 - 06.2022
- Prof: Dr. Kostia Zuev. Graded homework, held weekly OH and discussion.

Intro to Applied Math I TA | Caltech   01.2022 - 03.2022
- Prof: Dr. Kostia Zuev. Graded homework, held weekly OH and discussion.

Applied Linear Algebra TA | Caltech   10.2021 - 12.2021
- Prof: Dr. Kostia Zuev. Graded homework, held weekly OH and discussion.

Invited Presentations

NeurIPS 2024 Conference | Vancouver, CAN, *Hybrid Causal Discovery*   12.2024

INFORMS 2024 | Seattle, WA, *Hybrid Causal Discovery*   09.2024

Skills

Languages: `Python`, `LaTeX`, `R`.

Tools: sklearn, numpy, tidyverse.