

Abhineet Agarwal

aa3797@berkeley.edu | Personal Website | Google Scholar | Github | LinkedIn

EDUCATION

- **University of California, Berkeley** 2020 - Present
PhD, Statistics
 - Advisor: Prof. Bin Yu
 - References: Prof. Bin Yu, Prof. Anish Agarwal
- **Columbia University** 2015-2019
B.A. Physics, Mathematics
 - Awards: Magna Cum Laude, Phi Beta Kappa, Science Research Fellow, Departmental Honors

WORK EXPERIENCE

- **Citadel** May 2024 - August 2024
Quantitative Research Intern, Equity Quantitative Research (EQR) New York
 - Developed and implemented machine learning models for alpha-research
- **Simons Foundation, Flatiron Institute** May 2018 - May 2019
Research Intern, Center for Computational Physics New York
 - Developed and implemented numerical algorithms to study novel physics in superconductors.

SKILLS

- **Programming/ML Tools:** Python, Pytorch, Scikit-Learn, Hugging Face, Git
- **Research Skills:** Artificial Intelligence (AI), Machine Learning, Deep Learning, Interpretability, Causal Inference, Bandits, Active Learning, Recommender Systems (Rankings), Tabular Deep Learning

PUBLICATIONS

C=CONFERENCE, J=JOURNAL, S=IN SUBMISSION

* denotes equal contribution.

- [S.1] Justin Singh Kang*, Landon Butler*, **Abhineet Agarwal***, et.al (2025). **SPEX: Scaling Feature Interaction Explanations for LLMs**. Submitted to ICML
- [S.2] **Abhineet Agarwal***, Michael Xiao* et.al (2025). **Uncertainty Quantification via the Predictability, Computability, and Stability Framework**. Submitted to **Proceedings of the National Academy of Sciences**
- [C.1] **Abhineet Agarwal**, et al. (2024). **Multi-Armed Bandits with Network Interference**. In NeurIPS, MIT CODE, Stanford Graph Learning Workshop
- [C.2] Liwen Sun, **Abhineet Agarwal**, et al. (2024). **ED-Copilot: Reducing Emergency Department Wait Time with Language Model Diagnostic Assistance**. In ICML
- [J.1] **Abhineet Agarwal**, et al. (2024). **Fast Interpretable Greedy Tree Sums (FIGS)**. In **Proceedings of the National Academy of Sciences (PNAS)**.
- [J.2] Qianru Wang, et al., including **Abhineet Agarwal** (2024). **Epistasis Regulates Genetic Control of Cardiac Hypertrophy**. Accepted to Nature Cardiovascular Medicine.
- [C.3] **Abhineet Agarwal**, et al. (2023). **Synthetic Combinations: A Causal Inference Framework for Combinatorial Interventions**. In NeurIPS, MIT CODE (**Oral Presentation**), extended version in submission to **Econometrica**
- [S.2] **Abhineet Agarwal**, et al. (2023). **MDI+: A Random-Forest Based Flexible Feature Importance Framework**. Manuscript submitted to **Journal of the American Statistical Association (JASA)**.
- [C.4] **Abhineet Agarwal**, et al. (2022). **Hierarchical Shrinkage: Improving the Accuracy and Interpretability of Tree-Based Methods**. In ICML (**Oral Presentation**)
- [C.5] Tan Yan Shuo, **Abhineet Agarwal**, Bin Yu. (2022). **A Cautionary Tale on Fitting Decision Trees to Additive Models: Generalization Lower Bounds**. In AISTATS
- [J.3] **Abhineet Agarwal**, et al. (2022). **Veridical Flow: A Python Package for Building Trustworthy Data-Science Pipelines with PCS**. In **Journal of Open-Source Software (JOSS)**.

SERVICE

- **Reviewer**
 - Conferences: NeurIPS, ICML, AISTATS (**Top Reviewer**)
 - Journals: Annals of Applied Statistics, Annals of Statistics, IEEE Transactions on Information Theory, Cell Physical Reports
- **Teaching**
 - Graduate Student Instructor (GSI) STAT 214: Data Analysis and ML for Real-World Decision Making
 - GSI for Physics 8A/B: Introductory Physics