

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. Giles Hooker, 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, Git, Pytorch, Scikit-Learn, Hugging Face
- **Research Skills:** Artificial Intelligence (AI), Machine Learning, Deep Learning, Interpretability, Causal Inference, Active Learning, Recommender Systems (Rankings), Tabular Deep Learning

PUBLICATIONS

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

- [S.1] Abhineet Agarwal, Bin Yu (2024). **Efficient Local Feature and Interaction Attribution for Language Models via Sparse Fourier Transforms**. In Preparation for ICML
- [S.2] Abhineet Agarwal, Bin Yu (2024). **Active Learning for Feature and Data Attribution**. In Preparation for ICML
- [S.3] Abhineet Agarwal (2024). **Tree-former: Improving Tabular Deep-learning by Combining Tree-Based Models with Transformers**. In Preparation for ICML
- [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)**. Accepted to Proceedings of the National Academy of Sciences (PNAS).
- [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.4] 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, et al. (2022). **A Cautionary Tale on Fitting Decision Trees to Additive Models: Generalization Lower Bounds**. In AISTATS
- [J.2] 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
- **Teaching**
University of California, Berkeley
 - Graduate Student Instructor for Physics 8A/B