

Wenhao PAN

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EDUCATION

- University of Washington, Seattle** Seattle, WA
Ph.D. in **Statistics** 09/23 - 06/27 (expected)
• Coursework: Big Data (PySpark), Bandits, Stochastic Processes, Advanced Statistical Testing, High-Dimensional Statistics.
- University of California, Berkeley** Berkeley, CA
B.A. in **Statistics** and B.A. in **Computer Science** (*Summa cum laude*) 08/19 - 05/23
• Coursework: Deep Learning, Convex Optimization, Data/Machine Structures (Java/C), Causal Inference, Time Series.

PROFESSIONAL EXPERIENCE

- Paul G. Allen School of Computer Science | Advisor: Kevin Jamieson** Seattle, WA
Research Assistant in Bandit Algorithms for Matrix Completion 11/24 - Present
• Developed confidence bounds for error under non-uniform sampling for matrix completion with contextual bandits.
- UW Center for Statistics & Social Sciences | Advisor: Tyler McCormick, Zaid Harchaoui** Seattle, WA
Research Assistant in Causal Inference, Network Analysis, and Performative Prediction 08/24 - Present
• Enhanced the causal validity of search engine experiments by integrating network interference into performative prediction.
- UW Witten Group | Advisor: Daniela Witten** Seattle, WA
Research Assistant in Statistical Methodology for Selective Inference ([code](#)) 08/23 - 02/24
• Boosted the statistical power of Data Thinning on Poisson count data by 85.4% by rank-transformed subsampling.
- Berkeley Artificial Intelligence Research Lab | Advisor: Anil Aswani** Berkeley, CA
Research Assistant in Optimization Algorithms for Image Demosaicing ([code](#)) 05/22 - 05/23
• Reduced demosaicing time for a 90x60 pixel image by 86.7%, from approximately 11,300 seconds to 1,500 seconds.
- Lawrence Berkeley National Laboratory | Advisor: Haichen Wang** Berkeley, CA
Research Intern in Machine Learning for Particle Physics ([poster](#)) 01/22 - 01/23
• Raised the accuracy of a PyTorch Graph Transformer for Higgs bosons on rare samples by 65.4% (from 26% to 43%).
- Oski Lab | Advisor: Cyrus Dioun** Berkeley, CA
Research Assistant in Automated Cannabis Product Classification ([code](#)) 02/21 - 10/22
• Optimized Keras TextCNN and Pytorch BERT models to achieve 93.7% and 95.3% average F1-scores on the test set.

PUBLICATIONS

- **Pan, W.**, Aswani, A. and Chen, C. (2023), Accelerated Nonnegative Tensor Completion via Integer Programming. *Frontiers in Applied Mathematics and Statistics*, 9, p.1153184.

PERSONAL PROJECTS

- Sequential Investment and Universal Portfolio Algorithms** 03/24 - 06/24
• Developed and executed portfolio selection algorithms on FAANG stock data spanning 2019 to 2024 ([report](#)).
- Classifying and Interpreting Moral Judgment with Reddit Data** 03/24 - 06/24
• Applied BERT, LightGBM, and BERTopic to identify key factors shaping moral judgments in Reddit posts ([report](#)).

TEACHING EXPERIENCE

- University of Washington, Seattle | Teaching Assistant** Seattle, WA
• STAT 516, Stochastic Modeling of Scientific Data. 09/24 - Present
• STAT 390, Statistical Methods in Engineering and Science. 06/24 - 08/24
• CSE 416, Introduction to Machine Learning. 03/24 - 06/24
• STAT 180, Introduction to Data Science. 01/24 - 03/24

TALKS & PRESENTATIONS

- Why Does Transformer Not Work For The Higgs Boson?** Berkeley, CA
ATLAS Lawrence Berkeley National Laboratory 2022 Annual Meeting 01/23