Wenhao PAN

wenhaop.github.io | linkedin.com/in/wenhao-pan-uw | wenhaopanwork@gmail.com | Seattle, WA

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 predicting Higgs boson kinematics 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