

Wenhao PAN

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EDUCATION

University of Washington, Seattle

Ph.D. in **Statistics**

Seattle, WA

09/23 - 06/27 (expected)

- Coursework: Big Data (PySpark), Bandits, Stochastic Processes, Advanced Statistical Testing, High-Dimensional Statistics.

University of California, Berkeley

B.A. in **Statistics** and B.A. in **Computer Science** (*Summa cum laude*)

Berkeley, CA

08/19 - 05/23

- Coursework: Deep Learning, Convex Optimization, Data/Machine Structures (Java/C), Causal Inference, Time Series.

PROFESSIONAL EXPERIENCE

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%.

Oski Lab | Advisor: Cyrus Dioun

Berkeley, CA

Research Assistant in Automated Cannabis Product Classification ([code](#))

02/21 - 10/22

- Optimized a TextCNN model through Keras to achieve a 93.7% average F1-score on the test set.
- Fine-tuned a BERT model through Hugging Face and PyTorch to achieve a 95.3% average F1-score 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