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, 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, Causal Inference, Time Series, Linear Models.

INDUSTRY EXPERIENCE

Amazon Science | Manager: Mengfei Cao

New York, NY

Incoming Applied Scientist Intern in Supply Chain Optimization Technologies and Forecasting Science

06/25 - 09/25

• Expected to build highly customized transformers that produce probabilistic output to predict sales on different granularities.

RESEARCH EXPERIENCE

Paul G. Allen School of Computer Science | Advisor: Kevin Jamieson

Seattle, WA

Research Assistant in Bandit Algorithms for Matrix Completion and Recommender Systems

11/24 - Present

• Developed confidence bounds for error under non-uniform sampling for matrix completion with contextual bandits.

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 in R 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 Deep Learning for Particle Physics (poster)

01/22 - 01/23

• Raised the accuracy of a Transformer trained on Cori cloud cluster for Higgs bosons on rare samples 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 513, Statistical Inference.

01/25 - Present

• STAT 516, Stochastic Modeling of Scientific Data.

09/24 - 12/24

• 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