

William Shiber

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EDUCATION

Johns Hopkins University

MSE Applied Mathematics and Statistics

Baltimore, MD
Expected May 2025

- GPA: 4.0
- Focus Area: Statistics and Statistical Learning
- Head Teaching Assistant: Data Science (EN.553.636/436)

Johns Hopkins University

BS Applied Mathematics and Statistics

Baltimore, MD
Expected May 2025

- Varsity Wrestling; Dean's List, GPA: 3.7
- Focus Areas: Probability and Stochastic Processes, Financial Mathematics, Scientific Computing
- Hopkins Undergraduate Society for Applied Mathematics, Student Athlete Advisory Committee (Executive Board)

St. Paul's School

Concord, NH

WORK EXPERIENCE

Machine Learning / Data Science Intern

Divergent3D

Los Angeles, CA
June 2024 – October 2024

- Developed end-to-end production prioritization application used by over 500 techs and engineers daily
- Designed and launched manufacturing and program health dashboards. Increased on-time purchase order fulfillment by 50%
- Created machine learning models to predict part production time and facility capacities
- Refactored data streams using SQL and Azure to design data-pipelines. Established six tailored data-marts
- Collaborated cross-functionally to construct specialized KPI reports using SQL, Python, and Power BI, improving data-driven decision making

Computational Physics Researcher

Entropy for Energy Laboratory, Johns Hopkins University

Baltimore, MD
January 2023 - Present

- Utilized C++ and SQL to develop and implement a materials search API accessing over 3.5 million materials entries
- Improved AFLOW API over competitor APIs by implementing tensor-like and species/atom-specific property filtering
- Presented research and results at the Institute for Data Intensive Engineering and Science (IDIES) Annual Symposium and the Ralph O'Connor Sustainable Energy Institute (ROSEI) Summit

Python Intern

April Labs Inc.

San Francisco, CA
May 2022 - October 2022

- Built and populated funding database to support research of potential VC and PE firms for capital raise
- Constructed NYC real estate agent and property manager databases
- Researched potential partners and created pitch notes to support analysis and negotiation

PROJECTS

NBA Betting Model

April 2023 - Present

- Used a custom neural network regressor to predict NBA point differentials and winners. Achieved 75%+ accuracy while predicting game winners. Integrated predictions with sports books to identify arbitrage opportunities among betting lines.

Data Science Course Content

- Created materials and lesson plans as Head TA for graduate level data science class at Johns Hopkins. Materials included recitation slides, exams, homework sets, and notes. Managed a team of 12 other TAs to facilitate smooth course operation.

TECHNICAL SKILLS

Programming Languages: Python, SQL, C++, MATLAB, R, Julia

Tools: PyTorch, Pandas, Numpy, Matplotlib, Power BI, Microsoft Fabric Azure, Spark, Git, GitHub

Techniques: Regression, Bayesian Inference, Decision Trees, SVMs, PCA, Neural Networks (CNN, GNN), Deep Learning, CI/CD

COURSES

- Probability, Statistics, Real Analysis, Dynamical Systems, Linear Algebra, Differential Equations, Optimization
- Machine Learning (ML), Data Science, Computational Mathematics, Algorithms, Data Science for Large Scale Graphs
- Monte Carlo, Times Series, Equity Markets and Quantitative Trading, Organic Chemistry, Thermodynamics, Physics

AWARDS AND RECOGNITIONS

- Recipient of John W. and Mary Lou Ross Scholarship (Johns Hopkins University)
- Awarded Institute for Data Intensive Engineering and Science (IDIES) Summer Student Fellowship
- Chi Alpha Sigma, Omicron Delta Kappa (National Student Athlete and Leadership Honor Societies), Eagle Scout