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EDUCATION

UC BERKELEY

B.A. Computer Science, Mathematics, Dec 2023
GPA: 3.9/4

COURSEWORK

COMPUTER SCIENCE

Deep Learning
Machine Learning
Computer Graphics
Computer Security
Algorithms
Computer Architecture
Data Structures

MATH

Probability
Numerical Analysis
Linear Algebra
Differential Equations
Manifolds
Topology and Analysis

SKILLS

LANGUAGES

Python • C/C++ • JavaScript
Go • Java • SQL • Matlab

FRAMEWORKS

Full-stack development:
AWS • React • Node • Django

Data and Machine Learning:
PyTorch • Huggingface • AWS SageMaker • AWS Bedrock • Databricks • Apache Solr •GPU Computing (MLX, Cuda, Torch)

CI/CD:
Jenkins • Docker • Bitbucket • Argo CD • Kubernetes

INTERESTS

Machine learning • Computer vision & graphics • Natural language • Statistical forecasting • Research

EXPERIENCE

AD MARKETPLACE | Machine Learning Engineer Intern

May 2024 - Present | New York City, NY

- Optimizing time-series models for the proprietary algorithmic ad bidding solution.
- Full-stack development — Writing frontend (Typescript/React) and backend (Django) code for an internal AI app, following CI/CD best-practices.

STORK ORACLE NETWORK | Founding Engineer

August 2022 – December 2023 | San Francisco, CA

- Designed a high-performance WebSocket API for live crypto data. The pricefeed serviced several notable paying DeFi clients, such as Vertex and Apex.
- Scaled a simple project up to an ultra-fast, very reliable premium API with high uptime and low latency requirements

DEXTERITY CAPITAL | Quantitative Analysis Intern

May 2022 – August 2022 | Seattle, WA

- Analyzed cryptocurrency markets for arbitrage opportunities, financial alpha, and other pricing signals. Uncovered signals that became incorporate the proprietary algorithmic trading engine, which trades billions of dollars a day.
- Integrated an evolutionary algorithm (CMA-ES) into the automated backtesting framework, dramatically accelerating hyperparameter convergence and enhancing the algorithm's overall computational efficiency.

FIRST REPUBLIC BANK | Data Science Intern

June 2020 – August 2020 | San Francisco, CA

- Optimized the workflow orchestration (CI/CD) framework by designing an Apache Airflow pipeline with scheduled tasks and dependencies.
- Decreased execution of end-to-end software deployment by 50%.

RESEARCH AND PUBLICATION

BERKELEY VISUAL COMPUTING LAB | Researcher

December 2023 - May 2024 | Berkeley, CA

- Lee, J., **Srivastava, V.**, Jennings, N., Ng, R. "Theory of Human Tetrachromatic Color Experience." *ACM SIGGRAPH*, 2024. Honorable Mention for Technical Papers Awards, spotlighted at the annual conference.
- Researched the emergence of color vision in humans via neurological models, specifically in the case of esoteric conditions such as human tetrachromacy.
- Designed ML-models to investigating via neurologically accurate models of the eye, human brain, and physically accurate models of colors.

NA-JI BIOPHYSICS LAB | Researcher

September 2019 – April 2020 | Berkeley, CA

- Implemented computer vision tools (such as fast convex hull) for researchers to measure pupil size in rats in video data.
- Synthesized time-series data with pupil measurements to see how rodents react to shock stimulus.

PROJECTS

SEMANTICFINDER do-me.github.io/SemanticFinder/

Building SemanticFinder, a frontend-only semantic search engine powered by LLMs (>180 Github stars). Available as a web app and Chrome extention.