

Aaron Oster

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Education

University Of Delaware

B.S in Computer Science | GPA 3.571 (4.0 scale)

Relevant Courses: Software Engineering (Typescript), Data Mining (Python), Object Oriented Programming (Java), Data Structures (C++), Machine Learning (Python), Advanced Algorithms (Python), Amazon Web Services (AWS), Databases (SQL), Networks (Bash, Linux), Parallel Programming (C++, CUDA), Financial Fraud Detection Modeling (Python)

Scholarship Awards: Winter Scholars, Summer Scholars, AICOE Scholars

Experience

Fastbreak AI

Jun. 2024 - Present

Full Stack Software Engineer / Data Scientist

Python, AWS, React, Next.js, PostgreSQL, DBT, Snowflake

- Engineered ETL workflows to capture, transform, and load frontend event data into PostgreSQL
- Automated Python-driven geo-location analytics and report generation, cutting manual effort and accelerating insights
- Led end-to-end development of a React Native mobile app, integrating Supabase for the backend and Auth0 for secure user authentication
- Implemented Snowflake Snowpipe to automate ELT/ETL pipelines, ingesting new data from S3 into Snowflake pipelines
- Built Next.js/React dashboards to schedule, monitor, and visualize ML model runs, enhancing team productivity

ZADSTER LLC

May 2024 - May 2025

Full Stack Architect

Next.js, Typescript, AWS, ORM, PostgreSQL, Auth0

- Engineered a responsive Next.js and Tailwind CSS front end for users to log and track vehicle restoration projects, receipts, and modifications
- Implemented Auth0 for secure user sign-up, authentication, and email verification
- Designed and optimized PostgreSQL schemas to manage user profiles, project data, and transaction histories

Macys

Aug 2023 - Feb 2024

Luxury Sales Associate

Sales, Management

- Met and exceeded monthly luxury sales targets through tailored styling consultations, strategic upselling, and cultivating long-term client relationships

Gleghorn Biomedical Engineering Lab

Jan. 2023 - Feb. 2024

Machine Learning Engineer / Data Scientist

Python, Flask, Huggingface, AWS, BigQuery, PostgreSQL

- Presented complex research results at lab showcases, translating technical insights for cross-disciplinary audiences
- Architected an NLP-driven ML pipeline to predict protein functionality, boosting prediction accuracy and reliability
- Processed and curated biological datasets to train custom LLMs for advanced protein sequence analysis
- Built a Flask web interface for real-time model queries, streamlining user access to predictive insights
- Refined model parameters to achieve 92% test accuracy, validating the framework's robustness

Projects

Vocal Chess on the Go

May 2025

Voice-Enabled Chess Client (Lichess API)

Python, Flask, WebSockets, Multithreading, TTS, Hugging Face

- Architected a Flask backend with WebSockets to capture voice commands and broadcast real-time game API updates
- Fine-tuned Hugging Face TTS models and implemented multithreaded audio pipelines for faster response times
- Partnered with Chess.com and Lichess teams to influence roadmap planning for native voice-driven gameplay

Algorithmic Trading Bot

Mar 2025

Utilizes Alpaca API to Place Trades at Optimal Pricing

Python, WebSockets, Financial Modeling, Multithreading

- Developed a WebSocket based data ingestion pipeline for real time market feeds
- Integrated with the Alpaca API to execute buy/sell orders automatically at optimal price points
- Designed and backtested quantitative financial models (e.g., moving averages, momentum indicators) to generate trade signals

Ada.ai

Mar 2023

First-Place Hen-Hacks Hackathon Winner

Flutter, OpenAI, PostgreSQL

- Integrated OpenAI's API to deliver dynamic, context-aware learning prompts, boosting user engagement
- Engineered a cross-platform mobile UI/UX in Dart/Flutter, ensuring smooth performance on iOS and Android
- Led a four-person team through agile sprints in a 36-hour hackathon to ship a polished prototype on deadline