STEPHEN WANG

Hanover, NH · 603-678-1377 · swang.2420@gmail.com
Personal Website · **Github** · **LinkedIn**

EDUCATION

Dartmouth College, Hanover, NH   **Jun 2024**
Bachelor of Arts, Majors in Computer Science and Economics   **GPA 3.76/4.00**
Coursework: Machine Learning, Deep Learning, Statistics, Data Visualization, Discrete Math, Linear Algebra, Software Design and Implementation, Artificial Intelligence, Algorithms and Data Structures, Full-Stack Web Development, Object-Oriented Programming

WORK EXPERIENCE

TradeStation   **Jun 2023 - Aug 2023**
Data Engineer Intern
- Designed pipeline to convert attrition data on 200,000+ brokerage accounts into gold datasets within **AWS**
- Created automated scripts using **Python**, **SQL**, and **Databricks** to detect 99.5% of account anomalies in 2023 based on accounting rules and exceptions resulting from 24-7 cryptocurrency trading
- Created rule notebook to fix 78% of account anomalies in 2023, saving financial managers at least 1 hour/day

U.S. Army Corps of Engineers   **Jun 2021 - Jun 2022**
Machine Learning Intern
- Designed ensemble deep learning and gradient-boosting models using **Python**, **Tensorflow**, **XGBoost**, **LightGBM**, and **scikit-learn** to reduce error in key rotorcraft performance metric predictions by over 90%
- Automated testing of over 1,500 neural network configurations using **Optuna** and **Keras**
- Amended machine learning pipeline with data visualization capabilities using **matplotlib** to monitor strength of airfoil performance predictions at different angles-of-attack and Mach number for the top 50 models
- Co-authored the research paper *"Synthetic CFD Estimation for Blackhawk Airfoil Drag Coefficient"*
- Work featured in laboratory research symposium and RD 2022 conference reaching over 600 attendees

Dartmouth Computer Science Department   **Jan 2023 - Dec 2023**
Machine Learning Teaching Assistant
- Lead weekly recitation sessions, office hours, and 1-on-1s to reinforce key concepts (OOP, recursion, graph theory, ML), support students in exam/project preparation, and encourage coding best practices
- Collaborated with graduate TAs in COSC 1 to improve recitation materials used by over 400 students per year

PROJECTS

Harmonize   **May 2024 - Jun 2024**
Full-Stack Engineer
- Developed both frontend and backend of application that combines elements of Spotify with Instagram, turning music-sharing into a more social activity using **React, Javascript, Node.js, Express, Zustand, MongoDB** and Spotify **API**

Opportune   **Sep 2023 - Mar 2024**
Frontend Engineer
- Developed entire frontend of team-matching and project management application for new hires using **React, Remix, Typescript, HTML/CSS,** and seamlessly wired data from backend using **Axios** and **MongoDB**
- Featured at two technology symposiums attracting over 800 students, faculty, and community members

Predictive Modeling of U.S. Retail Sales   **May 2022**
- Conducted exploratory data analysis and visualizations on retail data using **Python**, **seaborn, matplotlib, scikit-learn**, uncovering profitable items and revenue trends across various product categories and states.
- Developed predictive models using **CatBoost** (gradient-boosting decision trees), achieving over 99% accuracy in determining transaction profitability and product sub-categories, and $R^2 > 0.99$ for discount percentages

SKILLS & INTERESTS

Proficient: Python · SQL · Tensorflow · Pytorch · R · HTML/CSS · Javascript · React · Java · NLP · Bash · Git
Familiar: ETL · Data Modeling · Airflow · Databricks · Docker · AWS · PowerBI · PySpark · Tableau · MongoDB
Interests: Piano · Music Composition · Photography · Tennis · Skiing