Ariana Shafiee

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EDUCATION

Johns Hopkins University | B.S in Computer Science & Cognitive Science, Minor in Environmental Studies

WORK EXPERIENCE

Social Tech Labs | Software Engineering Intern **June 2024 – August 2024, Remote**

- Developed a comprehensive frontend for a production health analytics platform using Vite, React, and Storybook, crafting a real-time patient monitoring dashboard with D3.js and Framer Motion that resulted in a 42% decrease in clinical visits.
- Employed Pandas for robust data ingestion, NumPy for advanced array manipulations, SciPy for effective bandpass filtering, and Matplotlib for visualizations; streamlined PCA and signal analysis on time series data to lower trial expenses by 33%.
- Built and deployed a supervised learning model with scikit-learn's fine tree algorithm for binary and multi-class classification, achieving a peak accuracy of 97.2%.
- Applied k-fold cross-validation to significantly reduce bias and utilized confusion matrices to fine-tune classification thresholds, which contributed to shortening trial timelines by 7 months.

AstraZeneca Inc./ Evinova | Software Engineering Intern **May 2023 - Aug 2023, Remote**

Creating tools that empower care providers & researchers to transform health through tech

- Engineered end-to-end frontend for production health analytics platform using Vite, React, & Storybook; developing real-time patient monitoring interface with D3.js and Framer Motion, achieving 40% reduction in clinical visits.
- Leveraged Pandas for data ingestion, NumPy for array manipulations, SciPy for bandpass filtering, and Matplotlib for visualizations; streamlined PCA and signal analysis on time series data, contributing to 32% reduction in trial costs. Implemented a supervised learning model using scikit-learn's fine tree algorithm for binary and multi-class classification, achieving up to 96.9% accuracy.
- Employed k-fold cross-validation for substantial bias reduction, and utilized confusion matrices to fine-tune classification thresholds, pivotal in accelerating trial timelines by 6 months.

Inbound Careers Inc. | Software Engineer **July 2022 - April 2023, Baltimore, MD**

University recruiting platform that connects diverse student organizations directly with employers and recruiters

- Engineered a full-stack web application for a university recruiting platform using React (with hooks, Redux, and React Router) on the frontend and Firebase (Cloud Firestore, Authentication, Cloud Functions) on the backend to connect diverse student organizations with leading employers.
- Developed dynamic and intuitive student and recruiter portals with Material-UI and custom CSS, enabling recruiters from firms such as Blackstone, Mastercard, and Deloitte to engage high-caliber candidates efficiently.
- Optimized platform performance and scalability with CI/CD pipelines and Firebase's serverless architecture, driving rapid adoption across 16 top-tier universities including Stanford, Northwestern, and multiple University of California campuses while implementing advanced matching algorithms in an agile environment.

SOFTWARE PROJECTS

Daily Grind Café Chain Mobile Ordering App (Android and iOS)

- Entrusted to build a cross-platform ordering expo app, leveraging Firebase Firestore for real-time order/inventory management
- Integrated the JHU credentialing system for SSO for the 3 campus locations, enabling use of dining dollars in meal plans
- Consolidated 9 locations, each previously with separate websites, into one app, supporting unique menus and operations

GreenGauge Eco-Friendly AI Model Selector

- Designed a sustainability-focused AI decision platform that predicts prompt complexity using a Random Forest model and recommends the most energy-efficient LLMs (ChatGPT, Mistral, Google Search) based on real-time environmental cost metrics
- Engineered a full-stack web app with a React frontend, FastAPI backend, MongoDB database, and NLP preprocessing using HuggingFace datasets, NLTK, and the Transformers library
- Winner of "AI for Change" Hackathon out of 80+ teams; praised for originality, technical depth, and impact — the app visualized AI energy costs in relatable units like plastic bags, water waste, and EV miles

CypressTFA Gesture-Augmented Facial Recognition System for Robust Anti-Spoofing Security

- Developed a universal Chrome extension for triple-factor authentication combining real-time liveness detection (OpenCV), facial recognition (DeepFace), and randomized hand gesture verification using a pre-trained computer vision model
- Engineered a secure, full-stack system with Python FastAPI & MongoDB Atlas, enabling any website to deploy robust MFA native integration
- Named Hophacks 2024 Runner-up for both "Best Privacy & Security Hack" and "Best Computer Vision Hack" for innovation in deepfake-resistant login flows; system validated identities within 30 seconds under dynamic lighting and delivered an accessible MFA infrastructure for small to mid-sized platforms

TECHNICAL SKILLS

Languages | Java, Swift, C, C++, C#, CSS, Javascript, HTML, Python
Software | React, Xcode, MongoDB, Android Studio, Figma, Illustrator, Swift UI, Final Cut, Blender, Node, SQL, Pandas, PostgreSQL, VS Code
Courses | Machine Learning: Deep Learning, Human Language Technology (NLP, LLM), Object Oriented Software Engineering, Data Structures & Algos, Multivariable Calculus, Software Testing & Debugging, Human-Computer Interaction, Artificial Intelligence, Full-Stack JavaScript