Harry Zhu

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SKILLS

Languages: Python · Bash/Shell · Java · C# · JavaScript · TypeScript · C/C++ · Scala · XML · SQL

Frameworks: React · Node.js · Vue · NoSQL · Express · Tailwind · SciPy · NumPy · Tensorflow

Tools: PostgreSQL · Docker · Kubernetes · CI/CD · AWS · Langchain · Azure · Linux · Git

EXPERIENCE

F5 Networks   Seattle, WA
Software Engineer Intern   July 2024 – September 2024
- Accelerated development process across multiple teams by building a **CI/CD** module that can investigate a crash from functional tests in 50+ staging and production environments using **GDB** and **Bash** within 8 minutes
- Conducted daily analysis of 5-10 CI/CD pipeline executions, leveraging **GDB** to examine crash dumps and aggregate stack traces and relevant source code from functional test logs into **Bugzilla**, an enterprise bug reporting software
- Expanded knowledge sharing by documenting project scope, deliverables, and milestones in **Jira** and **Confluence**

George Fox University Communications Office   Newberg, OR
Software Engineer Intern   August 2021 – April 2024
- Engineered a **monitoring tool** using **Vue** and **NodeJS**, reducing manual verification of content accuracy by 95%
- Achieved a **90%** reduction in manual build time for various tasks time down to 2-4 seconds by developing 20+ user-driven programs in **NodeJS** interacting with the content management system and various public web services
- Optimized branding by redesigning **100+** legacy pages trafficked by **1,000+** users with **JavaScript** and **CSS**
- Increased web accessibility by developing and **A/B testing** 50+ features in a collaborative, cross-functional team

Liminal Insights, Inc.   Emeryville, CA
Software Engineer Intern   June 2023 – August 2023
- Reduced product configuration time by 80% by building an app with a service-oriented architecture in **Python**
- Optimized battery cell testing process efficiency, offloading **50+** log messages/minute with **ZeroMQ** and pub/subs
- Stabilized uptime and data flow of 100+ **OPC** events, removing race conditions involving **Redis** subscriptions

Recidiviz, Inc.   San Francisco, CA
Software Engineer Intern   June 2022 – August 2022
- Built an access monitoring tool in **Python**, **Docker**, and **GCP**, reducing **IAM** audit time by 90% across 17 vendors
- Introduced over 10 new security controls and alerts in infrastructure services across 3 disparate cloud environments
- Resolved **200+** product and container vulnerabilities using **CI/CD** with **CodeQL** and **Trivy** for automated scans

PROJECTS

Pickabox - Hackathon Team Project | 45+ hours of **React** and **Python** development with **Google Cloud**
- Won 2nd place in Best Design at Sacramento Hacks in 2021
- Implemented Wikipedia API integrations using **Cloud Run** services to develop the article retrieval service

TZ Medical - ECG Medical Triage (Group Capstone Project) | **SciPy**, **Tensorflow**, **Scikit-Learn**
- Extracted 8 domain features on over **34,000+** ECG events by developing standalone data processing scripts
- Detected arrhythmia events close to **95%** precision on a **70-80%** confidence interval with **Random Forest**

Career Blog (Personal Project) | 75+ hours of **PHP** and **TypeScript** development with **Digital Ocean** and **Vercel**
- Architected 10+ **React** components and 10+ back-end **RESTful APIs** using **PostgreSQL** in **Linux**
- Implemented JWT APIs server-side and React Contexts and Hooks to manage user authentication and blog services

EDUCATION

George Fox University   August 2020 – April 2024
Computer Science, Bachelor of Science   Newberg, OR
Coursework: Machine Learning, Operating Systems, Database Systems, Algorithms, Data Structures
Affiliations: CodePath, College Track, Gameheads