Harry Zhu

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SKILLS

Languages: Python Java JavaScript TypeScript Bash C/C++ C# SQL CSS PHP

Tools: React NodeJS NextJS TailwindCSS Docker AWS BigQuery PostgreSQL

Professional Experience

Software Engineer (Contractor) — Recidiviz YC19

November 2024 – Present

• Retired 200+ SQL sensitive data queries by pre-fetching metadata cache using Python, achieving near-instant lookups and boosting developer productivity, with projected savings exceeding \$10-15K in BigQuery costs annually

Software Engineer Intern — F5 Networks

July 2024 – September 2024

- Implemented automated debugging using **Bash** shell scripting in Kubernetes-driven containers to analyze **100**+ CI/CD pipelines resulting in **70**% faster crash analysis for **45**+ **developers** on F5's core traffic management system
- Expanded knowledge sharing by creating documentation on crash analysis procedures, supporting 30+ developers
- Accelerated crash recovery time by 10% across teams by aggregating 5+ stack traces into bug reports per day

Software Engineer Intern — Liminal Insights, Inc.

June 2023 – August 2023

- Reduced configuration time by 90% by developing **NextJS** and **Python** containerized services using Docker
- Improved battery testing reliability by architecting a message-oriented system processing 50+ debug logs/minute
- Achieved 95% uptime for 100+ industrial control events through Redis-driven data flow by removing race conditions

Security Software Engineer Intern — Recidiviz YC19

June 2022 – August 2022

- Eliminated 200+ vulnerabilities in the product platform through automated security scanning and risk mitigation
- Built a stopgap security account automation system handling 15+ annual departures using Docker and Python frameworks, driving 95% efficiency gain in audit workflows until replacement by enterprise SOC2 solution
- Prevented potential security incidents through implementation of 10 new security controls in Google Cloud

Security Analyst Intern — Northwest Natural Energy, LLC

May 2021 – August 2021

- Enabled real-time tracking of 1000+ daily logins through Splunk dashboard implementation for threat detection
- Reduced team search time by 5+ hours weekly through overhaul of 100+ SharePoint files and incident plans

Projects

TZ Medical ECG Medical Triage - Group Capstone Project | github.com/HarryZ10/ecg

- Collaborated with 12 tech professionals to gather and translate business requirements into technical specifications
- Extracted 8 domain features on over **34,000+** ECG events by developing standalone data processing and ETL scripts using **SciPy**, **NumPy**, and **Scikit-Learn**, resulting in ~95% precision in identifying anomalous ECG data

Pickabox - Hackathon Team Project | React, Express, Google Cloud | pickaboxdemo.netlify.app

- Won 2nd place in Best Design by building a web app used by 1K+ users to aggregate Wikipedia articles
- Designed and launched an app showcasing random Wikipedia articles to enhance user learning and exploration

ACADEMIC EXPERIENCE

Software Engineer Intern — University Communications Office

August 2021 – April 2024

- Engineered 20+ NodeJS programs to leverage CMS workflow APIs, reducing development cycles and time by 90%
- Streamlined content review time by 95% through an API-driven VueJS CMS monitoring system for 4,000+ pages
- Enhanced user experience for 1,000+ daily visitors through performance and design optimization of 100+ pages

EDUCATION

George Fox University

Graduated April 2024

Bachelor of Science in Computer Science

Newberg, OR

Relevant Coursework: Ethical Hacking, Penetration Testing, Secure Software, Cyber Security & Digital Forensics, Cyber Defense, Operating Systems, Data Networking

Activities: 2x Top 500 CTF Competitor