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 (TCP/IP suite, FTP, UDP, SSL/TLS)

Activities: 2x Top 500 CTF Competitor