Harry Zhu

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SKILLS

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

Tools: Flask · React · NodeJS · NextJS · Jest · BigQuery · PostgreSQL · Docker · AWS · GCP · Tailwind

PROFESSIONAL EXPERIENCE

Software Engineering Contributor — Recidiviz YC S19 — November 2024 – Present
- Engineered Python automation to standardize 200+ BigQuery schema manifests across 20 state agencies, reducing per-file query processing time from ∼2.5s to near-instant through local schema caching

Software Engineer Intern — F5 Networks — July 2024 – September 2024
- Accelerated crash recovery time by 10% across teams by aggregating 5+ stack traces into bug reports per day
- Automated GDB debugging program using REST APIs and Shell scripting in a Docker-driven staging environment to analyze 100+ CI/CD pipelines resulting in 70% faster crash analysis impacting 50+ developers and 500+ customers
- Expanded knowledge sharing by creating documentation on crash analysis procedures, supporting 30+ developers

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 **React** CMS monitoring system for 4,000+ pages
- Led A/B testing efforts through cross-team collaboration and adopting new features by 80% in 50+ pages
- Enhanced user experience for 1,000+ daily visitors through performance and design optimization of 100+ pages
- Facilitated requirements gathering sessions with stakeholders to define business needs and web support tickets

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

Software Engineer Intern — Recidiviz YC S19 — June 2022 – August 2022
- Eliminated 200+ vulnerabilities in the product platform through automated security scanning and remediation
- Built API-driven 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

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 meaningless 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

Journex Career Blog (Blind Clone) | **React**, **TypeScript**, **AWS Ubuntu Linux**, **PHP** | blog.harryzhu.com
- Implemented JWT APIs server-side and React Contexts and Hooks to manage user authentication and blog services

EDUCATION

George Fox University — Graduated April 2024
Bachelor of Science in Computer Science (Minor in Cybersecurity) — Newberg, OR
Activities: CodePath, ACM President & Tech Lead, 2x Top 500 CTF Competitor, College Track, Gameheads