Harry Zhu

Oakland, CA | harryzhu45@gmail.com | linkedin.com/in/harryjzhu | github.com/HarryZ10 | harryzhu.com

EDUCATION

George Fox University — Graduated April 2024

Bachelor of Science in Computer Science — Newberg, OR

Coursework: Operating Systems, Computer Architecture, Data Structures, Object Oriented Programming
Activities: Teaching Assistant, ACM President, 2x CTF Medalist (Top 200), College Track, Gameheads

PROFESSIONAL EXPERIENCE

Software Engineering Contributor — Recidiviz — November 2024 – Present
- Retired 200+ SQL sensitive data queries by pre-fetching metadata cache using Python on Unix systems, achieving instant lookups and boosting productivity, with projected savings exceeding $10-15K in BigQuery costs annually
- Built data pipeline services in Python to standardize 200+ schema configurations that processed 200+ datetime fields, improving data consistency and reducing processing time from hours to minutes

Software Engineer Intern — F5 Networks, Inc. — July 2024 – September 2024
- Developed backend and automation tooling using Linux-based Bash scripting to analyze 100+ CI/CD jobs, enhancing debugging efficiency for F5's core traffic management system in a Kubernetes and C-driven infrastructure
- 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 — George Fox Communications Office — August 2021 – April 2024
- Developed 20+ back-end tooling and data pipeline services using NodeJS, reducing development cycles 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

Software Engineer Intern — Liminal Insights, Inc. — June 2023 – August 2023
- Reduced configuration time by 90% by developing a Docker-driven feature flag tool for 7+ features in React-based NextJS and TailwindCSS that interfaces with PostgreSQL and dependency management tools like Poetry
- Improved battery testing reliability by building a Linux-based ZeroMQ system processing 50+ debug logs/minute
- Maintained uptime for 100+ industrial control events through Redis-driven data flow by removing race conditions

Software Engineer Intern — Recidiviz — 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
- Deployed 10 security controls in Google Cloud, including log monitoring via Pub/Sub, Slack alert integrations, and PagerDuty incident response scripts, reducing mean time to detection (MTTD) by 40%

PROJECTS

TZ Medical ECG Medical Triage - Machine Learning Project | github.com/HarryZ10/ecg
- Defined requirements for a production-grade ECG triage system, delivering domain feature extraction scripts using SciPy, Scikit-Learn, and NumPy, including 34K ECG events with 95% precision in identifying anomalous data

Context Free Grammar API in Golang | github.com/GrammarHive/backend.grammarhive.org
- Developed a text generation service using a grammar-based approach, allowing users to generate and upload contextualized text by utilizing MongoDB for storage and retrieval, along with a RESTful API for interaction
- Implemented authentication using Auth0, enhancing user experience while maintaining best practices in security
- Utilized Go's robust concurrency framework to handle multiple grammar content generation processes

Ecological Simulation Models in C | CS 434 Parallel & Distributed Systems | Fall 2023
- Implemented a parallelized predator-prey model in C++ using POSIX threads to simulate ecological dynamics
- Extended the model using MPI for distributed memory systems in C, managing communication among 10+ nodes

SKILLS

Languages & Tools: Python · Java · Golang · JavaScript · TypeScript · Spring · PHP · SQL