

# Harry Zhu

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## SKILLS

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

**Tools:** React · NodeJS · NextJS · TailwindCSS · Docker · AWS · BigQuery · PostgreSQL

## PROFESSIONAL EXPERIENCE

**Software Engineering Contributor** — Recidiviz YC19 November 2024 – Present

- Decommissioned 200+ complex state data queries by automating metadata caching from BigQuery with Python, achieving near-instant lookups and boosting developer productivity, with projected savings exceeding \$30K 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

**Software Engineer Intern** — Recidiviz YC19 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](https://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](https://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**, **AWS**, **Linux**, **PostgreSQL** | [blog.harryzhu.com](https://blog.harryzhu.com)

- Implemented JWT APIs server-side and React Contexts and Hooks to manage user authentication and blog services

## ACADEMIC EXPERIENCE

**Software Engineering Teaching Fellow** — College of Engineering August 2022 – April 2024

- Mentored 50+ students in group sessions for data structures, algorithms, database systems, and operating systems

**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

**Activities:** CodePath, ACM President & Tech Lead, 2x Top 500 CTF Competitor, College Track, Gameheads