# Harry Zhu

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# EDUCATION

# George Fox University

Graduated April 2024

Bachelor of Science in Computer Science (GPA: 3.6)

Newberg, OR

Coursework: Network Administration, Operating Systems, Data Networking (TCP/IP suite, UDP)

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 backend validation services in Python to standardize 200+ schema configurations that processed 200+ datetime fields, improving data consistency and reducing processing time from hours to minutes
- Contributed to engineering excellence through code reviews and documentation of data standardization practices

# Software Engineer Intern — F5 Networks, Inc.

July 2024 – September 2024

- Developed backend and automation tooling using Linux-based scripting to analyze 100+ CI/CD jobs, enhancing debugging efficiency for F5's core traffic management system in a Kubernetes container 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

- $\bullet$  Developed front-end tooling components using NodeJS and REST APIs, building delightful user interfaces that reduced 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

- $\bullet$  Reduced configuration time by 90% by making a Docker-driven feature flag tool in React using ORM for 7+ features
- 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

# 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

#### Personal Career Blog in React | github.com/HarryZ10/blog.harryzhu.com

- Designed 10 ReactJS components and 9 backend REST APIs in PHP using PostgreSQL on an AWS EC2 instance
- Reduced XSS risks by 90% via JWT tokenization and React Context, supporting 200+ authenticated users monthly

## SKILLS

Languages: Python Java Go JavaScript TypeScript HTML PHP SQL

Tools: Active Directory · AWS · React · NodeJS · NextJS · TailwindCSS · Docker · PostgreSQL · REST API