

# Harry Zhu

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## EDUCATION

### George Fox University

*Bachelor of Science in Computer Science*

*Coursework:* Algorithms (Scala), Machine Learning, Parallel & Distributed Systems, Object-Oriented Design

Graduated April 2024

*Newberg, OR*

## EXPERIENCE

### Software Engineer Intern (Web Development)

*George Fox University, Office of Marketing and Communications*

August 2021 – April 2024

*Newberg, OR*

- Developed 20+ automation scripts in **NodeJS**, achieving a 90% reduction in manual build time down to 2-4 seconds
- Engineered a **monitoring tool** using **Vue** and **NodeJS**, reducing manual verification of content accuracy by 95%
- Optimized branding by redesigning **100+** legacy pages trafficked by **1,000+** users with **JavaScript** and **CSS**
- Increased web accessibility by A/B testing 5+ legacy and new features per week in a cross-functional team

### Software Engineering Teaching Fellow

*George Fox University, Department of Computer Science*

August 2022 – April 2024

*Newberg, OR*

- Instructed 50+ computer and information science students in core concepts like data structures, algorithms, databases, computer architecture, operating systems, and web development through 101 and group sessions
- Facilitated learning and knowledge transfer for a diverse group of students, ensuring their future professional success

### Software Engineer Intern

*Liminal Insights*

June 2023 – August 2023

*Emeryville, CA*

- Reduced product configuration time by 80% by building an app with a service-oriented architecture in **Python**
- Optimized battery cell testing process efficiency, offloading **50+** log messages/minute with **ZeroMQ** and pub/subs
- Stabilized uptime and data flow of 100+ **OPC** events, removing race conditions involving **Redis** subscriptions

### Software Engineer Intern

*Recidiviz*

June 2022 – August 2022

*San Francisco, CA*

- Built an access monitoring tool in **Python**, **Docker**, and **GCP**, reducing **IAM** audit time by 90% across 17 vendors
- Introduced over 10 new security controls and alerts in infrastructure services across 3 disparate cloud environments
- Resolved **200+** product and container vulnerabilities using **CI/CD** with **CodeQL** and **Trivy** for automated scans

### Security Analyst Intern (SecOps)

*Northwest Natural, Department of Cybersecurity and Compliance*

May 2021 – August 2021

*Portland, OR*

- Streamlined security protocols by documenting inventory for 20+ in-house software and hardware systems
- Created a **Splunk** dashboard for real-time detection of suspicious logins and tracking pre-success failed attempts
- Revamped enterprise knowledge sharing by overhauling 100+ legacy SharePoint files, enhancing process efficiency

## PROJECTS

### ECG Triage for TZ Medical (Group Project) | 50+ hours of **SciPy**, **Tensorflow**, **CNN** and **Scikit-Learn**

- Extracted 8+ domain features on over **34,000+** ECG events by developing 3+ data processing scripts
- Detected arrhythmia events close to **95%** precision on a **70-80%** confidence interval with Random Forest

### Career Blog (Personal Project) | 50+ hours of **PHP** and **TypeScript** development with Digital Ocean and Vercel

- Architected 10+ **React** components and 10+ back-end REST APIs using PostgreSQL in Linux
- Implemented JWT APIs server-side and React Contexts and Hooks to manage user authentication and blog services

### Pickabox (Hackathon Team Project) | 45+ hours of **React** and **Python** development with Google Cloud services

- Won 2nd place in Best Design at Sacramento Hacks in 2021
- Implemented **Cloud Run** services for back-end Wikipedia API to develop the article retrieval service

## ADDITIONAL SKILLS

**Tools:** C# · C++ · TypeScript · Flask · JavaScript · AWS · MongoDB · Google Cloud · Agile