

# Harry Zhu

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## EDUCATION

### George Fox University

Graduated April 2024

*Bachelor of Science in Computer Science*

*Newberg, OR*

*Coursework: Operating Systems (C/C++), Parallel Systems, Data Structures (Java), Algorithms, Machine Learning*

## EXPERIENCE

### Software Engineer Intern

August 2021 – April 2024

*George Fox University*

*Newberg, OR*

- Developed 20+ automation scripts in **Node.js**, achieving a 90% reduction in manual build time down to 2-4 seconds
- Engineered a monitoring tool using **Vue.js** and **Node.js**, 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 Engineer Intern

June 2023 – August 2023

*Liminal Insights*

*Emeryville, CA*

- Reduced product configuration time by 80% by building a web app with a microservices 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

June 2022 – August 2022

*Recidiviz*

*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 Operations Analyst Intern

May 2021 – August 2021

*Northwest Natural Gas Utility Company*

*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**, **NumPy**, **Tensorflow**, and **Scikit-Learn**

- Extracted 8+ domain features on over **34,000+** ECG events by developing 3+ data processing scripts
- Detected arrhythmia events with over **95%** precision and **70%** confidence using a supervised learning algorithm

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

- Architected 10+ **React** components and 10+ back-end RESTful API endpoints using Postgres and SQL 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
- Deployed a full-stack web app that enhances user engagement with Wikipedia articles and images
- Implemented **Cloud Run** services for back-end Wikipedia API pipelines to manage the article retrieval service

## ADDITIONAL SKILLS

**Tools:** Amazon Web Services (AWS) · React.js · Next.js · HTML · FastAPI · Git · SQLAlchemy