Harry Zhu

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EDUCATION

George Fox University

Newberg, OR

Bachelor of Science in Computer Science

Expected April 2024

Courses: Data Structures, Algorithms, Operating Systems, Database Systems, Ethical Hacking, Machine Learning

Experience

Web Developer Intern (Software)

August 2021 - May 2024

George Fox University

Newberg, OR

- Engineered a page monitoring tool, a Vue and Node web application interfacing with the content management system API, reducing manual verification of content accuracy by 90% down to 2 seconds.
- Developed 20+ automation scripts in Node achieving a 99% reduction in manual build time down to 2-4 seconds
- Optimized branding by building 100+ new pages with JS and CSS, supporting the archival of 1,000+ legacy pages

Software Engineer Intern

June 2023 – August 2023

Liminal Insights

Emeryville, CA

- Reduced manual software configuration time by 99% from 5-7 minutes to 30 seconds by building a feature flag service in React and Python that manages 7+ internal and commercial features of the hardware product, EchoStat
- Optimized battery cell testing process efficiency, offloading 50+ log messages/minute with ZeroMQ and pub/subs
- Stabilized data flow verified by unit and in-lab testing, removing a race condition between EchoStat and the PLC

Software Engineer Intern

June 2022 – August 2022

Recidiviz

San Francisco, CA

- Enhanced the access verification time by 90% down to 2 seconds by building an internal monitoring tool in Python and Google Cloud that performs IAM policy audits and reports elevated privileges in 17 user-centric platforms.
- Led the 90% increase of 12 security controls and alerts of cloud services, using an API data pipeline and pub/subs
- Resolved 200+ product vulnerabilities found in production by creating a CI/CD pipeline for SAST)

Security Operations Analyst Intern

May 2021 – August 2021

Northwest Natural Gas Utility Company

Portland, OR

- Led a security inventory documentation effort of 20+ in-house hardware and external software servers that maintain the infrastructure for the organization
- Developed 6 SQL queries, resulting in a 50% increase in identifying suspicious login activity in privileged systems
- Created six interactive dashboards and real-time alerts, leading to a 10% reduction in incident response time

Projects

Journex Full-Stack Blog | PHP, TypeScript, React, PostgreSQL, CSS

January 2024 – May 2024

- Implemented in-house JSON Web Token authentication pipelines to manage the user login and registration service
- Architected 6+ front-end components and 10+ CRUD API endpoints for real-time database retrieval and updates

TZ Medical Electrocardiogram Artifact Event Detection | Python, Node

January 2024 – May 2024

- Labeling and extracting domain features of over 1,000 ECG events to load them into supervised learning models
- Aiming to create an algorithm with a team of four that will detect unreadable heart events with a high PPV rate

Pickabox (Sacramento Hacks) | React, CSS, Google Cloud

February 2021 - February 2021

- Architected a React SPA that won 2nd Place in Best Design to display random Wikipedia articles for engagement
- Used Cloud Run services for Wikipedia API pipelines to manage the article retrieval service

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, SQL, Typescript, C/C++, C#, Elixir, Scala, Java, Bash, Haskell

Frameworks: ReactJS, NodeJS, VueJS, Flask, JUnit, Jest, GraphQL, NoSQL, MVC

Tools: REST API, CI/CD, Git, Google Cloud, Linux, Redis, Docker, AWS EC2, Postgres, SQLite, Jira, Confluence

Libraries: Bootstrap, Material-UI, Pandas, NumPy, Matplotlib, Seaborn