Zephyr Zhou

Seeking for software engineer opportunities

Email : xzhou1551@gmail.com
Phone number: (253)359-6692
LinkedIn: zephyr-zhou-a17741196
GitHub: zephyrz73

Education

University of California, Santa Barbara (UCSB) — *Sep 2022 – March 2025*
Master of Science in Computer Science

University of Washington, Seattle, WA — *Sep 2018 - Jun 2021*
Bachelor's Degree of Science in Computer Science

Experience

BeaconFire Inc. — East Windsor, NJ (Remote)
Java Full-stack Software Engineer — March 2025 – May 2025

Built and maintained a scalable forum platform using **Spring-based microservices**, with strong access control, async messaging, and cloud-native service orchestration.

- **API Development**: Designed and implemented JWT-token based authentication and role-based administrative endpoints (user activation, post moderation, role assignment) with **Spring Boot**, **Spring Security**, **JWT**, **MySQL**
- **Messaging**: Developed an asynchronous Email Service leveraging **Kafka** to dispatch verification and reset-password emails with **HTML templates** and **expiring tokens**
- **Security:** Enforced hierarchical **role-based access control**, implemented token validation workflows, secured endpoints with **action-level (CRUD) authorization**, and applied **password encryption using BCrypt and Jaspyt**
- **Testing:** Achieved **94% unit test coverage** using **JUnit and Mockito** for service logic; implemented centralized global exception handling and logging with **Spring AOP** to improve reliability and maintainability
- **Architecture & Data**: Integrated **Eureka** and **Spring Cloud Gateway** for service discovery and routing; structured persistence using **MySQL** and **MongoDB Atlas** with isolated schemas

Violett Inc. — Seattle, WA
Contract Full-stack Software Engineer (Part-time Intern) — *Sep 2020 – May 2024*

Developed full-stack multi-platform customer portal (enterprise and household version) hosted on AWS for "IoT-enabled air quality monitoring platform" currently carried by air purifiers network.

- **Backend**: Created a web service, which performed CRUD operations to **DynamoDB** to manage devices/users and monitor status, analyzed data collected with **AWS Lambda** in **Java**, load tested, optimized
- **Frontend/Mobile:** Built the website and cross-platform mobile app that display real-time air quality and register user, pairing device with Bluetooth, using **JavaScript, React.js, Material-UI, Dart Flutter, D3 graphs**
- **CI/CD**: Configured **AWS Amplify** and **GitHub Action** in **Linux Script** to automate deployment.
- Assembled and mentored a skilled team and fostered iterative **Agile development** adoption.

Appfolio — Santa Barbara, CA
Software Engineer Intern — June 2023 – Sep 2023

Enhanced and maintained renter's insurance purchase pages with UI A/B experiments in the tenant portal web.

- Built **React UI** components (chatbot, address check, questionnaire) using **TypeScript** and Coastline UI
- Launched **A/B tests** via **Optimizely**; achieved +30% conversion, flagged -18.1% regressions
- Wrote **unit/integration** tests using **Mocha**, **Sinon**, **React Testing Library** with 90% code coverage
- Resolved legacy UI issues, cleaned test suites, recognized for clear code and team collaboration

Pulumi Corp. — Seattle, WA
Software Engineer Intern — *Jun 2020 - Sep 2020*

Proposed and developed the Content Management System (**CMS**) web application for Pulumi's website.

- Integrated **GitHub OAuth** for secure user authentication in **Golang**, ensuring seamless access control
- Built **AWS ECS Fargate IaC** with **Pulumi TypeScript**, automating scalable service deployment.
- Adopted as formal internal web tool, reduced content release cycle by 75%, and accepted as sample project

Project

- **Broadband Pricing Web Crawler** – Automated large-scale ISP plan data extraction using **Python, Selenium, Docker**, and rotating proxies; improved query throughput by 50% and bypassed bot detection mechanisms
- **Multiplayer Hangman Server** – Built a multithreaded **TCP** server in **C++** using POSIX **threads** and **socket**s to support concurrent clients and real-time gameplay logic on **Linux**

Skills

Lang: **Java, Python, SQL, JavaScript, HTML, CSS, TypeScript**, **C++/C ,** Dart, Ruby on Rails, Bash, C#, Golang
Other: **AWS** (**S3, EC2, ECR**, **IoT, CloudWatch, IAM,** EKS), **Git, Machine Learning**, Docker, Kafka, ELK, Node.js