

Freya Zou

Corvallis, OR

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Education

Oregon State University

B.S. in Computer Science

- **GPA:** 3.95/4.0 | Dean's List

Corvallis, OR

Sept 2021 - Current

Saint-Petersburg State University

B.A. in Linguistics

- **GPA:** 4.73/5.0 | Graduated with Distinction

Saint-Petersburg, Russia

May 2015 - May 2020

Work Experience

Amazon

Bellevue, WA

Software Dev Engineer Intern

June 2024 - Sept. 2024

- Enabled communication between two platforms by utilizing Sharelink microservice as the intermediary, leveraging Java, Python, the Vue.js framework, and AWS services to enhance content-sharing capabilities.
- Queried data from the S3 bucket using Athena, then implemented API calls to request a link from a microservice by embedding the queried data into the link, enabling users to click the share link on the Impact 2.0 UI to open the Sleuth app and copy the data to the clipboard.
- Developed unit and integration tests using Mockito and JUnit, and created end-to-end tests for the UI using Cypress.
- Deployed the project to production across multiple regions, including FE, NA, and EU, and executed the Manual Change Management (MCM) process to gain hands-on experience with the full deployment lifecycle.

Projects

Cloud-Based Algorithmic Trading Strategies for High-Performance Portfolios

Sept 2023 - March 2024

- Implemented dynamic and responsive user interfaces in JavaScript, leveraging React for interactive and scalable components in a cloud-based portfolio recommendation app. Collaborated with UX/UI designers to translate design mockups into functional React components.
- Integrated Python for importing, exploring, and transforming stock market data, showcasing strong programming skills, and applied a diverse range of strategies, including AI/ML and rule-based approaches, to optimize portfolio performance and manage risks effectively.
- Built a framework for a comprehensive database to store stock market data, processed data, and trading strategy results.
- Developed and applied database expertise, cloud computing skills, and proficiency in C# while actively engaging in effective communication through collaborative efforts with team members and project sponsors.
- **Technical Skills:** Python, C#, ASP.Net, AWS, MongoDB, AI/ML, CI/CD pipeline, Git & GitHub.

Full Test-Suite For A Chart Building Application

March 2022 - June 2023

- Collaborated with a team of 4 students to implement a comprehensive test suite (unit tests, integration, and end-to-end tests) for a web application that allows users to build simple charts (line charts, scatter plots, and bar charts).
- Spearheaded the development of a robust CI/CD pipeline for the application using GitHub Actions, establishing branch protection rules on the main branch to enforce code review and successful tests before merging code changes.
- Utilized industry-standard testing frameworks such as Jest framework and Cypress, the DOM Testing Library, and test doubles to ensure thorough coverage and validate critical workflows within the application.
- **Technical Skills:** JavaScript (Jest, Cypress, Test Doubles), React.js, CI/CD pipeline, Git & GitHub.

Relational Database with UI and Backend Integration For E-Commerce

Sept 2022 - Jan 2022

- Utilized a combination of technologies including JavaScript, CSS, HTML, and SQL to create a user-friendly and responsive user interface (UI) and implemented backend functionality using JavaScript to establish a seamless connection between the UI and the database.
- Employed SQL to write Data Definition Language scripts for defining tables, relationships, constraints, and triggers within the database and designed and integrated triggers using SQL to automate specific actions based on predefined events, enhancing data consistency and integrity.
- Developed a product management system, allowing users to add, update, and remove products from the database through the UI and employed SQL queries to retrieve and display product information, customer data, and order details on the UI and documented the project comprehensively, including the database schema, UI design, backend code, and triggers, to facilitate future maintenance and development.
- **Technical Skills:** JavaScript, SQL, HTML/CSS, Node.js, npm, React.js, Git & GitHub.

Android Mobile App for Rebrickable

Jan 2023 - April 2024

- Led a team of 4 students in developing an Android application using ViewModel architecture, Kotlin, and XML, while integrating the Rebrickable website API to assist users in maximizing their Lego usage, finding sets to build with existing parts, and recommending sets based on usage.
- Integrated additional features, such as the Material Design Search Bar and interactive heart icon, to enhance the user search experience, and implemented functionalities to assist users in finding sets to build with existing parts and recommend sets based on usage patterns.
- Utilized the Preference library for storing settings, employed the Room Persistence Library for data storage, and demonstrated proficiency in the Jetpack Navigation component.
- Proficient in creating notification channels dynamically based on device SDK version and skilled in setting notification priority and importance for effective user notification management.
- **Technical Skills:** Kotlin, XML, MongoDB, SQLite, RESTful API, Git & GitHub.

Skills

Programming

Python, C/C++, JAVA, JavaScript(React, Vue, Node.js, Express), HTML/CSS, SQL, NoSQL, MongoDB, AWS, R, Haskell, Kotlin/XML, Docker, CI/CD testing, Unit, Integration, and end-to-end Testing, AWS, RESTful APIs.