

Freya Zou

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Education

B.S. in Computer Science, Oregon State University, GPA 3.95/4.0

Corvallis, OR | Sept 2021 - Mar 2022

B.A. in Linguistics, Saint-Petersburg State University, GPA 4.73/5.0

Saint-Petersburg, Russia | 2015 - 2020

Work Experience

Amazon Alexa

Seattle, WA

Software Dev Engineer I

May 2024 - Current

- Designed and integrated an external caching microservice into the Alexa+ Java package, enabling low-latency, cached content retrieval across multiple request paths.
- Implemented pre-ranking content sourcing via a cache-aware decision maker in the Java-based orchestration pipeline, allowing real-time fall-back and fine-grained content injection based on PDM cache hits.
- Collaborated across teams to debug content staleness and reconcile discrepancies between client-side refresh behavior and backend filter design.
- Utilized AWS CloudWatch for monitoring, logging, and performance optimization of Alexa services.
- Implemented and tested feature gating via Weblab experiments, enabling safe rollout and A/B validation of the PDM-backed content path.
- Technical Skills:** JAVA, CI/CD, AWS(EC2, Lambda, DynamoDB, VPC, CloudWatch, S3, Bedrock, EKS), RESTful API, Swagger, Git & GitHub.

Amazon Alexa

Bellevue, WA

Software Dev Engineer Intern

June 2024 - Sept. 2024

- Built a cross-platform share link feature using Sharelink microservice to transfer 2000+ utterance IDs between applications, eliminating manual copy/paste for data scientists to minimize operational overhead and data leakage risk.
- Queried data from AWS S3 using Athena and automated link generation via backend API integration (Java/Python + Vue.js).
- Developed automated unit and integration tests (Mockito, JUnit) and end-to-end UI tests (Cypress).
- Shipped feature to production across FE, NA, and EU regions and followed AWS MCM deployment process.
- Technical Skills:** JAVA, CDK, AWS(EC2, Lambda, DynamoDB, CloudWatch, S3, Athena), Docker, RESTful API, Swagger, Git & GitHub.

Projects

Cloud-Based Algorithmic Trading Strategies for High-Performance Portfolios

Sept 2023 - March 2024

- Built responsive React interfaces from Figma designs using modern JavaScript, enhancing usability and performance for a cloud-based portfolio recommendation app.
- Designed and implemented a scalable SQL database to store raw stock market data, processed indicators, 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, AL/ML, CI/CD pipeline, Git & GitHub.

Full Test-Suite For A Chart Building Application

March 2022 - June 2023

- Built comprehensive unit, integration, and end-to-end test suites for a charting web app.
- Developed CI/CD pipeline using GitHub Actions with branch protection and automated testing.
- Used Jest, Cypress, DOM Testing Library, and test doubles to ensure full workflow coverage.
- 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

- Built full-stack UI using JavaScript, HTML/CSS and connected it to a SQL database backend.
- Designed database schema and wrote SQL DDL for tables, relationships, constraints, and triggers.
- Developed product management features (add/update/delete products) with dynamic SQL queries and UI display.
- Technical Skills:** JavaScript, SQL, HTML/CSS, Node.js, npm, React.js, Git & GitHub.

Andriod Mobile App for Rebrickable

Jan 2023 - April 2024

- Led a team to build an Android app with ViewModel architecture, Kotlin, and XML, integrating the Rebrickable API for Lego set recommendations.
- Enhanced UX with Material Design elements (Search Bar, heart icon) and usage-based recommendations.
- Implemented settings with Preference library, local storage with Room DB, and Jetpack Navigation.
- Built dynamic notification channels with priority management based on SDK version.
- Technical Skills:** Kotlin, XML, MongoDB, SQLite, RESTful API, Git & GitHub.

Skills

Programming

Python, C/C++, JAVA, JavaScript(React, Vue, Node.js, Express), TypeScript, HTML/CSS, SQL, NoSQL, MongoDB, AWS(EC2, Lambda, DynamoDB, VPC, CloudWatch, S3, Bedrock, Kubernetes, Athena, IAM role), R, Haskell, Kotlin/XML, Docker, CI/CD testing, Unit, Integration, and end-to-end Testing, AWS, RESTful APIs.