

# OMANSH ARORA

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## Education

Simon Fraser University, *Bachelor of Science in Computer Science*

Sept 2020 - Dec 2025

## Experience

### Amazon

May 2025 – Aug 2025 (Internship)

*Software Engineer - Backend Services*

- Designed and implemented a fraud mitigation and user verification system for the Payments team using **Java** and **Spring**, reducing fraudulent account risk by an estimated **85%**.
- Authored a detailed design document and drove the project end-to-end, covering architecture, implementation, and testing, delivering the system 2 weeks ahead of schedule.
- Built over **50+ unit tests** with **JUnit** and **integration tests** using **Cypress**, achieving 92% test coverage and ensuring system stability.
- Contributed to a team-wide effort to improve fraud detection SLAs, with my system projected to scale to **20K+ transactions/month**.

### Safe Software

Jan 2025 – Apr 2025 (Internship)

*Software Engineer - Tooling & Infrastructure*

- Built and enhanced **Python**-based plugins and transformers for the **Feature Manipulation Engine (FME)** to support seamless integration across 450+ spatial and non-spatial data formats.
- Designed and delivered a full end-to-end **Python subsystem** from user story to production release, including architecture, implementation, testing, and comprehensive developer and user-facing documentation.
- Refactored and stabilized the **fpkgs SDK** infrastructure (internal SDK for packaging and deploying FME plugins), reducing plugin deployment failures by 30%.

### Samsung Research

Sep 2023 - May 2024 (Internship)

*Software Engineer - Cloud Platform*

- Enhanced security measures by creating an AWS Security Log analyzer with **Python**, resulting in a 20% tightening of security group rules.
- Built **CI/CD** pipelines using **GitHub Actions**, facilitating the migration from Jenkins and optimizing processes.
- Created AWS Synthetic monitoring with **Python** and **AWS Lambda**, to monitor the availability of Samsung Knox's website, ensuring 100% availability.
- Provisioned 50+ cloud resources with **Terraform**, integrating Datadog monitors for health checking.
- Built a robust Terraform security policy infrastructure using **OPA** and **Rego**, enhancing security measures by 40%.
- Created and deployed **KafkaUI Kubernetes** resources using Helm charts and **ArgoCD** to enable effective monitoring of Kafka instances.

### Electronic Arts

Sep 2022 - Dec 2022 (Internship)

*Software Engineer - Tooling & Automation*

- Built an automated test suite with 80+ unit tests using **Python** to test a proprietary web application, effectively replacing the team's old test suite completely.
- Developed a **Python** wrapper library to interact with a proprietary application API, ensuring all python developers could utilize it for their teams.
- Constructed and deployed **Docker** containers to establish a secure testing environment integrated into the **CI/CD** pipeline for the application, streamlining testing procedures by 25%.

## Technical Skills

**Languages:** Python, Java, C, C++, HTML, CSS, JavaScript, SQL, Bash

**Technologies/Frameworks:** Terraform, AWS, React.JS, Node.JS, Spring, Docker, Datadog

**Project Management:** Git, Jira, Confluence

## Projects - View all of my projects on GitHub

**Bloglife: Full-stack Blog App** | *React, Node.js, AWS RDS MySQL, AWS S3, EC2*

**SimpleChat** | *C, POSIX Threads, WebSockets, Cross-platform Networking*