

## EXPERIENCE

### Software Engineer

Feb 2024 — Present

Esri

Redlands, CA

- Maintained and optimized distributed backend services in **Java deployed on AWS EC2**, ensuring high availability and scalability to handle **10k+ requests/sec** in production.
- Architected and scaled a **distributed orchestration system on AWS (EC2, S3, DynamoDB, SQS)**, enabling reliable execution of **1,000+ concurrent workflows/day** with built-in automatic recovery and fault-tolerant locking mechanisms.
- Reduced concurrency-related bugs by implementing **distributed locking using DynamoDB** conditional writes, enhancing consistency and reliability in multi-tenant systems.
- Collaborated cross-functionally with **DevOps and product teams** to identify system bottlenecks and implement scalable solutions aligned with SLAs.
- Drove test coverage from **30% → 85%**, improving system reliability and reducing post-deployment bugs by 50%; authored technical documentation and deployment guides that cut onboarding time by 50%.

### Graduate Research Assistant

Aug 2022 — Dec 2023

Rochester Institute of Technology

Rochester, NY

- Built and deployed full-stack features for **NGAFID**, including **REST APIs in Java, optimized MySQL schemas, and React-based UI components**, enabling users to analyze millions of flight records efficiently.
- Designed a **3D flight visualization system using Cesium.js** and implemented advanced analytics on flight telemetry, **boosting platform engagement by 30%** and expanding aviation safety research capabilities.

### Software Engineer Intern

May 2022 — July 2022

ESRI

Portland, OR

- Automated setup of **GitHub Action** runners on Linux servers using Ansible, standardizing CI environments across development teams.
- Improved CI/CD performance by **30%** and integrated Vault for secure secrets management, reducing manual effort and strengthening pipeline security.

### Associate Consultant

Feb 2019 — July 2021

Capgemini

Mumbai, India

- Developed in **Spring Boot, Java, Angular, MySQL** to meet design specifications and user requirements to deliver high quality applications within specified deadline.
- Implemented and maintained **CI/CD** pipelines using **Jenkins** for code quality and rapid deployment, increased efficiency of the team by 20%.
- Collaborated with clients and project management to gather requirements and participated in development of automation projects using **Python and Machine Learning** algorithms which cumulatively led to reduction of **10 Full-Time Equivalent**.
- Served as subject matter expert for the projects, delivering comprehensive knowledge transfer sessions to multiple teams and newly joined team members.

## TECHNICAL SKILLS

### Programming Languages

Java, Python, SQL, Shell Script, JavaScript

### Backend & Frameworks

Spring MVC, JAX-RS, Jersey, Jetty, Tomcat, REST API's, Microservices, FastAPI, React

### Cloud & Infrastructure

AWS (EC2, S3, Lambda, DynamoDB, API Gateway, SQS), Docker, Kubernetes, Jenkins

### Databases

MySQL, DynamoDB, MongoDB, Neo4j

### Other tools

Git, Gradle, Maven, Linux, CI/CD pipelines, Monitoring (CloudWatch, VisualVM)

## PROJECTS

### Deep Neural Networks in Java | Java

Jan 2023 — May 2023

- Implemented core ML architectures (FFN, RNN with LSTM/GRU, CNN) and training algorithms (backpropagation, batch normalization, dropout) fully in Java, achieving 98% accuracy on MNIST, CIFAR-10, and Iris.
- Demonstrated ability to design framework-independent deep learning systems by optimizing numerical stability and memory efficiency without external ML libraries.

### Serverless Notes Application | Java, AWS (API Gateway, Lambda, DynamoDB), Angular

Nov 2023 — Dec 2023

- Built a scalable full-stack application with Angular frontend and AWS serverless backend (Java 17 + DynamoDB + API Gateway), supporting real-time secure note-taking and user authentication.
- Automated cloud infrastructure provisioning via AWS SAM templates (IaC), ensuring cost-efficient deployments and production-grade scalability.

## EDUCATION

### Master of Science, Computer Science, Rochester Institute of Technology

Aug 2021 — Dec 2023

**Coursework :** Advance Object-Oriented Programming Concepts, Foundation of Algorithms, Introduction to Big Data, Advance Graph Database, Big Data Analytics, Neural Networks, Introduction to Computer Networks.

### Bachelor of Engineering, Electronics and Telecommunication, University of Mumbai

Aug 2014 — Jun 2018