Jaineil Hemant Mandavia

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EDUCATION

Master of Science in Software Engineering   **Aug 2021 – May 2023**
San Jose State University, United States, **GPA: 3.74/4.0**

Bachelor of Engineering in Computer Engineering   **Aug 2016 – Oct 2020**
University of Mumbai, India, **GPA: 3.5/4.0**

EXPERIENCE

Software Engineer Intern at Sikka Software | San Jose, CA   **Dec 2022 – May 2023**
Technology stack: AWS, CI/CD, Docker, Kubernetes, Rust, YAML
- Built **Continuous Deployment** GitHub Actions workflow to build and push **Docker** images of Data Science services on **AWS ECR**
- Deployed these Data Science services on **Kubernetes** using **AWS EKS** with **Ingress** controller as a custom load balancer
- Implemented **AWS Lambda** endpoint in **Rust** to build connector for pushing formatted error logs to **AWS SQS**

Software Engineer Intern at Coursera, Inc. | Mountain View, CA   **May 2022 – Aug 2022**
Technology stack: Java, Spring Boot, gRPC, JUnit
- Implemented custom cache-aside with TTL in **Java** to manage periodic updates to the demo admin list for enterprise platform
- Designed an optimal and extensible code migration for all business use cases for user setting [tier 1] microservice from Scala to Java Spring Boot
- Wrote and maintained scalable **Java Spring Boot gRPC** services to efficiently load and store user settings, **impacting ~90 million registered users**
- Deployed all production traffic to new Java Spring Boot services **reducing tech debt by 5%**

Software Engineer at Cerebranium GmbH | Mumbai, India   **Jul 2020 – Jun 2021**
Technology stack: Python, TypeScript, Node.js, AWS Lambda, AWS EC2, MongoDB
- Built **AWS Lambda** batch-processing job to automate fetching of video data in batches, spawning of **AWS EC2** instances, and configuring **Docker** scripts to run the Computer Vision pipeline on the data
- Scaled the batch-processing job to dynamically handle load of up to 7000 videos per day into the Computer Vision pipeline
- Leveraged multiprocessing in **Python** to execute video analysis in parallel for optimal GPU utilization on **AWS EC2**
- Developed the entire suite of REST APIs in **Clean Architecture** for mobile backend using **Node.js** in **TypeScript** and **MongoDB**

PROJECTS

Cloud Event Center [GitHub]   **Apr 2022 – May 2022**
- Built a web application for online event management with key features viz. event scheduling, event forums, pre-event and in-event messaging, notifications, reviews, and a score-based reputation system
- Developed a full-stack application with a strong focus on **Java Spring**, Aspect Oriented Programming, MVC, ORM

Indeed.com Web App Prototype [GitHub]   **Oct 2021 – Dec 2021**
- Built a simulation of Indeed.com web application by designing a cloud-native, auto-scaling, load-balanced, internet-scale application that was deployed on **AWS**
- Developed a full-stack application with a strong focus on system design, real-time analytics, distributed messaging queues using **Apache Kafka**, caching using **Redis**

TECHNICAL SKILLS

- **Programming languages:** Python, Java, JavaScript (ES6), TypeScript (ES6), Rust
- **Databases:** MySQL, PostgreSQL, MongoDB, Redis, Firebase Firestore
- **Web frameworks & libraries:** Node.js, Spring Boot, Hibernate, Spring Data JPA, gRPC, Flask, React.js, JUnit
- **Cloud:** AWS – (EC2, ELB, RDS, ECS, EKS, S3), Docker, Kubernetes, YAML, Apache Kafka