Sumit Rodrigues

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EDUCATION

California State University, Fullerton

Fullerton, CA

Master of Science, Computer Science (GPA 3.8/4.0)

August 2023 - Present

Relevant Courses: Advanced Algorithms, Advanced Blockchain, Cloud Computing, Advanced Database Systems

University of Mumbai, India

Mumbai, IN

Bachelor of Engineering, Computer Science (GPA 3.25/4.0)

August 2017 - May 2021

Relevant Courses: Operating Systems, Artificial Intelligence, Data structures, Object-oriented programming

Work Experience

Software Engineer Student Assistant

August 2023 - Present

California State University - College of Communication

Fullerton, CA

- Created full-stack applications using Java and Spring Boot, enhancing system scalability and responsiveness, resulting in faster data processing and a smoother user experience
- Developed and optimized microservices-based applications using Java, Spring Boot, and SQL, reducing system latency by 25% and improving response times for mission-critical services
- Migrated virtual desktops from on-prem systems to AWS AppStream 2.0, leveraging serverless architecture, reducing downtime by 65% while enhancing remote accessibility

Software Engineer

September 2021 – July 2023

BNP Paribas (Bank of the West & BMO)

Mumbai, IN

- Led backend development for fintech applications, including KYC Scoring and Self-Service Tools, using Java, Spring Boot, and PostgreSQL, delivering projects 2 weeks ahead of schedule
- Built event-driven architectures with $\bf Apache~Kafka~and~RabbitMQ$, enabling real-time message streaming and increasing system throughput by $\bf 45\%$
- Implemented Redis-based caching for high-traffic applications, reducing API response times by 50% and improving system responsiveness
- Engineered parallel processing pipelines with Java Executor Service, improving request handling throughput by 46% and reducing processing time for large datasets
- Reduced time for generating reports for FED by 7% by charting transactional data & liquidity assets into a report-generating tool (Triton) developed using PostgreSQL
- Automated CI/CD pipelines with Jenkins, Docker, and Kubernetes, cutting deployment time from 4 hours to 20 minutes, ensuring zero downtime during releases

Software Engineer Intern

May 2020 - July 2020

TechHighway Systems Pvt. Ltd.

Pune, IN

- Built high-performance backend services using Java, Spring Boot, and AWS EC2, increasing system throughput and reducing response times by 20%
- Built interactive sales dashboards using **React** and **D3.js**, enabling real-time visualization of revenue, product performance, and customer trends
- Integrated distributed caching mechanisms with Redis to optimize database performance, reducing query load

Projects

Inventory Prediction System | Python, Machine Learning, SQL, VueJS, Nest.js, AWS

May 2024 – July 2024

- Developed an AI-powered inventory prediction dashboard with $\mathbf{Vue.js}$ for real-time demand forecasting, reducing fleet costs by 35% and stockouts by 20%
- Integrated secure APIs with Nest.js and MySQL, ensuring data consistency and real-time updates

Evergreen Bank | NextJS, TypeScript, React, Tailwind CSS, Chart.js, NPM, Vercel

May 2024 - July 2024

- Built a financial dashboard with real-time bank data using Plaid and Chart.js for visualizations
- Applied React Hook Form + Zod for robust form handling and data validation, ensuring high data integrity

Airline Performance and Flight Delay Analysis | Java, Kubernetes, Spark, Cassandra

January 2024 – May 2024

 Designed and deployed a scalable data pipeline using Apache Spark for distributed processing and Cassandra for storage. Orchestrated with Kubernetes, Minikube, and Docker, the solution enabled the efficient analysis of large .Parquet datasets for flight delay insights, reducing processing time by 50%

SKILLS

Languages and Frameworks: Java, Spring Boot, C++, Python, Node.js.

DevOps and CI/CD Tools: Jenkins, GitHub Actions, Kubernetes, Terraform, Grafana.

Cloud Technologies: Azure, Google Cloud, AWS (Sagemaker, EC2, Lambda, S3).

Databases & Storage: PostgreSQL, MySQL, MongoDB, Redis, Cassandra.

Certifications: Oracle Cloud Infrastructure Generative AI Professional