

Abhishek Ramchandani

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EXPERIENCE

Software Engineer

Sep 2024 – Present

Tritorc | Python, NextJS/React, AWS, MySQL

Pasadena, TX

- Reduced Bill of Material(BOM) traversal time from 70s to 9s by implementing graph traversal algorithms, recursive SQL queries for hierarchy extraction, and optimizing list structures for efficient in-memory processing
- Improved inventory accuracy by 58% through middleware development in Python, OData, staging data in optimized MySQL schemas, and integrating summarized RFID data with SAP S/4HANA via async APIs
- Deployed a performance dashboard with Next.js/React leveraging server-side rendering and real-time alerting to reduce delays by 48% and enhance supply chain predictability
- Architected modular ETL pipelines with AWS Glue and Lambda, using event-driven designs for centralized logistics data. Enabled real-time analytics and anomaly detection with CloudWatch, reducing bottlenecks by 20%

Software Engineer Intern

May 2023 – Aug 2023

Tritorc | Java, Jakarta EE, MySQL

Pasadena, TX

- Developed secure SOAP APIs using Java and Jakarta EE, to access manufacturing updates within MySQL, achieving an uptime of 98% with improved data accessibility for 50+ concurrent users
- Identified bottlenecks in MySQL queries and implemented indexing and request batching, improving data retrieval speeds by 37%
- Built automated test scripts within Jenkins CI/CD pipelines, performing role-based access control testing to ensure secure API functionality. Improved compliance with enterprise standards and increased test coverage by 40%

Founding Software Engineer

May 2020 – Apr 2022

FORKD.in | Java, Spring Boot, AWS, ReactJS, PostgreSQL

Mumbai, IN

- Developed REST APIs using Java and Spring Boot, enabling a scalable platform for private chefs, improving service efficiency by 20%
- Optimized frontend with ReactJS (Redux, Hooks, server-side rendering), reducing load times by 34% and boosting user engagement by 70% for seamless bookings
- Designed an event-driven architecture with Docker, RabbitMQ, and PostgreSQL on AWS EC2, reducing inter-service latency and ensuring reliable booking updates
- Leveraged Prometheus and Grafana dashboards, tracking latency and error rates to support proactive scaling
- Achieved 90% code coverage using JUnit and Mockito, ensuring reliable and high-quality delivery of the platform

TECHNICAL SKILLS

Languages & Frameworks: Java, Python, JavaScript, TypeScript, SQL; React, Node.js, Spring Boot, Django, GraphQL

Cloud Services: AWS S3, EC2, CodePipeline, Lambda, IoT Core, Azure Data Factory, Google Cloud Platform

Database Technologies: MySQL, SQLite, Azure SQL, PostgreSQL, MongoDB, Redis, DynamoDB, CassandraDB

ML Libraries: PyTorch, TensorFlow, Keras, Sklearn, Pandas, Hugging Face, SHAP, spaCy

Developer Tools: Postman, Git, Docker, Kubernetes

EDUCATION

Northeastern University

Boston, MA

Master of Science in Information Systems

May 2024

University of Mumbai

Mumbai, India

Bachelor of Engineering in Information Technology

Oct 2020

PROJECTS

AI-Driven SaaS Email Client | NextJS, Aurinko, OpenAI, PostgreSQL

[Github]

- Deployed an AI-powered client, integrating Aurinko API and Stripe for seamless email management and SaaS payments
- Built a scalable backend using Prisma & PostgreSQL, utilizing OpenAI Edge for LLM integration

3D Soccer Vision Analysis | Python, YOLOv8, OpenCV, AWS S3, Git

[Github]

- Implemented real-time object detection with Ultralytics and YOLO, enhancing player segmentation accuracy by 30% using KMeans and conducting 3D scene analysis with OpenCV
- Developed ball trajectory interpolation algorithms employing polynomial regression and Kalman Filtering, resulting in a 25% improvement in predictive accuracy

Fitness Tracker | Next.js, Node.JS, Express, MongoDB, Git

[Github]

- Engineered the progress record user story for a fitness tracking app; enhancing CRUD operations via REST APIs
- Ensured 20% higher code quality with ESLint and boosted data reliability by 15% through comprehensive Jest testing

Task Management App | React, Typescript, Prisma, PostgreSQL, Tailwind

[Github]

- Engineered a task management with priority filtering and real-time search, cutting load times by 58% through memoization
- Enhanced responsiveness with asynchronous optimistic updates, minimized re-renders, and comprehensive error boundaries for seamless user interaction