THARUN TEJA MOGILI

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SUMMARY

Focused and passionate Software Engineer with 3+ years of experience building scalable and production ready systems. Experienced in Python, Java and React.js with expertise in containerized deployments, microservices, and cloud-native infrastructure. Known for taking full ownership, collaborating cross-functionally, and thriving in fast-paced environments.

EDUCATION

University at Buffalo SUNY | Buffalo, NY   **Jan 2024 - May 2025**
Master of Science in Computer Science and Engineering   **GPA : 4.00**

TECHNICAL SKILLS

Languages	: Python, Java, JavaScript, TypeScript, C++, HTML, CSS
Web Frameworks	: Spring Boot, FastAPI, Node.js, React.js, Next.js, Angular, Express.js, Django
Database & Cloud	: MySQL, PostgreSQL, MongoDB, Redis, AWS EC2, S3, CloudWatch, Azure
Tools & Misc.	: Git, JIRA, Kubernetes, Maven, Selenium, Linux, RabbitMQ, Kafka, Docker, Jenkins, Terraform

EXPERIENCE

Copani LLC | **Software Development Engineer**   **Jan 2025 - Present**
Project - QuDEFENSE | Python, FastAPI, Lambda, CloudWatch   New York, USA
- Automated file fingerprinting by developing **AWS Lambda** functions triggered on S3 uploads that generated pre-signed URLs and invoked **FastAPI** endpoints, monitored via CloudWatch, to cut manual processing by 70%.
- Delivered real-time, tamper-proof audit trails by engineering **sync/async FastAPI APIs** for SHA-256 hashing and Algorand blockchain anchoring, storing metadata in **PostgreSQL** and implementing automated tests using **Pytest** to ensure reliability and code correctness.

LTIMindtree | **Software Engineer**   **Dec 2022 - Jan 2024**
Spring Boot, Python, AWS, Docker, RabbitMQ   Hyderabad, India
- Designed Spring Boot microservices to ingest documents and trigger AWS Textract for text extraction, integrated RabbitMQ for asynchronous messaging, **minimizing end-to-end processing latency by 80%**.
- Built Python based data quality pipelines to process Textract output using regex-based pattern matching to extract and clean raw fields into validated JSON and published to downstream systems via REST APIs, **cutting data quality errors by 90%**.
- Automated CI/CD pipelines using Jenkins to build Docker images and push them to Amazon ECR, deployed microservices to an Amazon EKS (Kubernetes) cluster, enabling zero-downtime releases and **cutting deployment time by 60%**.
- Restructured MongoDB schemas and added Redis caching for frequently accessed policy data, **reducing query latency by 35%**.

Larsen & Toubro Infotech (LTI) | **Software Engineer**   **Dec 2020 - Dec 2022**
Java, Spring Boot, React.js, Selenium, MySQL   Pune, India
- Built full-stack modules for **6 insurance products** using Java/Spring Boot (MVC) and React.js by translating business requirements into responsive, user-centric interfaces, reducing rework cycles by 30% through **close collaboration with product owners**.
- Engineered and maintained **20+** scalable **REST APIs** supporting high-throughput workflows. Integrated **OAuth 2.0** and **JWT** for secure, role-based access, reducing integration issues and enhancing platform reliability.
- Optimized system stability during peak insurance policy transactions, **reducing MySQL query latency by 35%** through restructuring relational schemas and implementing a Hibernate-based data access layer with caching.
- Created automated test suites for 15+ core modules using JUnit, TestNG, and Selenium in a TDD workflow, incorporated REST Assured API tests and Postman endpoint validations, **boosting coverage by 40%** and **reducing post-release defects by 25%**.
- Collaborated with **5+** cross-functional teams in an Agile SDLC to gather requirements, track defects in JIRA, conduct RCA, and **resolve 20+ post-release issues**, ensuring on-time delivery.

PROJECT

Scalable E-Commerce Microservices Platform
- Developed **Spring Boot microservices** (product, order, inventory, notification) each backed by its own MongoDB or MySQL datastore and secured via Keycloak (OAuth2/OIDC), and integrated Kafka for decoupled, event-driven communication.
- Containerized services in Docker, then applied Kubernetes manifests for rolling updates and **zero-downtime deploys**, **automating CI/CD builds (< 2 min)** and integrating real-time metrics with **Prometheus & Grafana**.

Distributed Pub-Sub System for Ubisoft Game Updates
- Designed a Pub-Sub system using Python, Kafka, and Docker for real-time Ubisoft game updates, **ensuring low-latency, high-throughput messaging** optimized for distributed architectures.
- Revamped **event-driven architecture with Flask and MySQL** for subscriber management, leveraging rendezvous-based routing to boost message delivery, enhancing scalability and reliability.

Visual Product Recommendation System
- Established AI-powered recommendation system using fine-tuned **ResNet50** with Triplet Loss for image similarity, deploying real-time search via FAISS, achieving **92% accuracy** and **reducing search latency to 500ms.**
- Built Flask based image search APIs and deployed using Docker and AWS Elastic Beanstalk, **boosting product discovery by 25%.**