Tharun K

+1 (928) 814-1145 • San Jose, CA • tharunk.dev@gmail.com • LINKEDIN

SUMMARY

Experienced Software Development Engineer with 5+ years of expertise in designing and building scalable applications using Java, Spring Boot, and REST APIs. Strong background in developing microservices, optimizing performance, and implementing CI/CD pipelines to deliver high-quality, production-ready solutions.

EDUCATION

M.S. Computer Science 08/2022 – 05/2024
Northern Arizona University, Flagstaff, AZ 3.80 GPA
Relevant Coursework: Data Structures, Database Systems, Distributed Systems, Operating Systems, Advanced Software Engineering, Machine Learning / Artificial Intelligence
Awards: ACM International Collegiate Programming Contest (ICPC) – Regional Finalist, Google Code Jam – Top 10% Global Rank, Hackathon – Winner for Building Scalable Web Application

TECHNICAL SKILLS

Programming Languages & Skills: Java, Python, C, C++, Data Structure and Algorithms, OpenCV, Object-Oriented Programming
Web Technologies: J2EE, Spring Boot, Web-Services (Soap), XML, Maven, Apache Tomcat, Spring MVC, Spring JDBC, Spring AOP, Spring IOC, Servlets, JSPs, JPA, JUnit, Multithreading/Concurrency, JavaScript, React JS, NodeJS, Kafka, SQL, NoSQL, HTML5, CSS3, Bootstrap
Database: MySQL, MongoDB
Operating System: Linux, MacOS, Windows
Productivity Tools: GitHub, Bitbucket, Git, Curl, Docker, Postman, Jenkins, SSH, Kubernetes, CI/CD Pipeline
AWS services: ECS, EC2, VPC, S3, CloudFormation, IAM, ELB, RDS, Route 53, Lambda
Soft Skills: Teamwork, Problem-solving, Communications, Active Learning, Diligent

PROFESSIONAL EXPERIENCE

Software Engineer II | **Goldman Sachs** 06/2023 – Present | San Francisco, United States

- Developed and maintained Java-based microservices for the Marcus digital banking platform (Consumer Banking division), handling 1M+ daily user requests and ensuring high availability with 99.9% uptime.
- Implemented RESTful APIs and optimized SQL/NoSQL queries, reducing page load times by 30% and cutting database response latency from 200ms to 120ms, directly improving customer experience in retail lending and savings products.
- Collaborated with front-end teams to integrate Spring Boot services with React components, enabling seamless data exchange and improving feature delivery speed by 25% for online deposits, personal loans, and credit card modules.
- Automated build and deployment pipelines using Jenkins, Docker, and Kubernetes, shortening release cycles from 2 weeks to 3 days, reducing deployment errors by 40%, accelerating delivery of new features for consumer products.
- Participated in system design discussions with Consumer Banking technology teams, proposing architectures that supported a 2x increase in concurrent users meeting Goldman Sachs strict financial compliance and security standards.

Software Development Engineer | **Qualcomm** 12/2020 – 07/2022 | Bengaluru, India

- Developed and optimized Java-based microservices for Qualcomm's Mobile & Compute Business Unit, supporting Snapdragon platforms used by top OEMs (Samsung, Xiaomi, OnePlus).
- Built and integrated RESTful APIs for cross-team data exchange, improving system interoperability across firmware, OS, and application teams.
- Reduced backend latency by 35% by implementing multithreaded data pipelines and optimized SQL/NoSQL queries for diagnostic and performance tools.
- Automated CI/CD pipelines using Jenkins, Docker, and Kubernetes, shortening release cycles from 3 weeks to 5 days and reducing deployment errors by 40%.
- Partnered with firmware and hardware engineering teams to validate 5G-enabled SoCs, ensuring 99.9% reliability for next-gen mobile devices.
- Collaborated with Automotive and IoT divisions to design scalable services handling 1M+ concurrent device connections for connected cars and smart devices.
- Participated in system design reviews for distributed systems, proposing architectures that improved scalability by 2x while meeting Qualcomm's security and compliance standards.

Associate Software Engineer | **Cognizant** 08/2019 – 11/2020 | Bengaluru, India

- Engineered distributed backend services in Java and Spring Boot, enabling real-time data synchronization across multiple geographies.
- Migrated legacy monolithic applications to microservices, improving system scalability and reducing downtime during deployments by 50%.
- Integrated third-party APIs for payments, authentication, and messaging, ensuring secure and seamless customer transactions.
- Developed unit and integration tests using JUnit and Mockito, increasing code coverage to 85% and reducing production bugs by 30%.
- Implemented caching layers with Redis and in-memory data grids, reducing repeated database hits and improving query performance by 40%.
- Deployed cloud-native applications on AWS using ECS, S3, and RDS, ensuring high availability and disaster recovery readiness.
- Collaborated with product owners and business analysts to refine requirements, translate them into technical specifications, and deliver features aligned with business goals.

PROJECTS

E-Commerce Web Application (MERN Stack)

- Built a scalable full-stack e-commerce platform using Node.js, Express, React, and MongoDB, handling 5k+ daily transactions.
- Implemented secure JWT-based authentication and integrated Stripe API for real-time payments.
- Deployed on AWS (EC2, S3, CloudFront) with CI/CD pipelines in GitHub Actions, achieving 99.9% uptime.

Real-Time Chat Application

- Developed a WebSocket-based chat system with Node.js and Socket.IO supporting group and private messaging.
- Designed a scalable backend with Redis Pub/Sub to handle 10k+ concurrent users.
- Integrated end-to-end encryption and user presence tracking for enhanced security and usability.

Cloud-Based Task Scheduler

- Created a microservices-based scheduler in Java (Spring Boot) with RabbitMQ for distributed job handling.
- Reduced execution time by 40% through optimized thread pooling and caching.
- Containerized with Docker & Kubernetes, auto-scaling tasks across multiple nodes on GCP.

Online Code Compiler Platform

- Built a multi-language compiler supporting Java, Python, and C++ using Docker container sandboxes.
- Designed REST APIs for code execution and result retrieval, ensuring safe and isolated environments.
- Implemented role-based access control for admins, moderators, and users, enhancing platform security.

Talking Data Ad Tracking Fraud Detection

- Processed 100K+ records from a highly imbalanced dataset (0.25% fraud), engineered temporal and frequency-based features (IP frequency, click burst rate), and applied target encoding for high-cardinality variables.
- Trained and compared Logistic Regression, Decision Tree, Random Forest, XGBOOST, and ANN models, achieving an F1-score of 0.94 with XGBOOST and 100% precision with Random Forest.
- Applied adversarial training to XGBOOST to enhance robustness against manipulated inputs, simulating real-world fraud evasion strategies.

CERTIFICATIONS

- AWS Certified Developer – Associate
- Microsoft Certified: Azure Developer Associate (AZ-204)
- Oracle Certified Professional, Java SE 11 Developer (OCPJP)
- Google Cloud Professional Cloud Developer
- Docker Certified Associate
- Kubernetes Certified Application Developer (CKAD)