ROHIT PARTHIBAN

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SUMMARY

Versatile Software Engineer with experience in backend development, microservices architecture, and API integration using Java, Python, and Spring Boot. Proficient in full-stack development with Flutter and Firebase for cross-platform applications (iOS, Android, Web). Skilled in building distributed systems, data ingestion pipelines, and deploying to cloud platforms like AWS. Experienced in CI/CD automation, version control (Git), and writing production-ready, scalable code.

EDUCATION

Master of Science in Computer Science and Engineering **Jun 2025**
Santa Clara University, Santa Clara, CA, USA, CGPA: 3.756
Coursework: Computer Architecture, Design Analysis and Algorithm, Object-Oriented Analysis, Design and Programming Advanced Operating Systems, Computer Networks, Distributed Systems, and Machine Learning.

Bachelor of Technology in Information Technology **Apr 2023**
Anna University, Chennai, TN, India, CGPA: 3.7

TECHNICAL SKILLS

Programming Languages: Java, Python, JavaScript, Dart, C, C++, SQL, HTML, CSS
Databases: Firebase Realtime Database, MySQL, MongoDB, Oracle, Snowflake
Frameworks & Libraries: Spring Boot, Flutter, React.js, Node.js, JavaFX, LangChain
Cloud & DevOps: AWS (EC2, S3, Auto Scaling), Firebase Hosting, GitHub Actions (CI/CD), IBM Cloud, Azure
Tools & Platforms: Git, GitHub, Linux, VMware, ChromaDB, llama.cpp, Figma

PROFESSIONAL EXPERIENCE

Software Application Developer Intern, SCU Frugal Innovation Hub **Jan 2025 – Present**
- Building Explora, a bilingual, gamified learning app on the solar system for iOS, Android, Web, and Windows using Flutter and Firebase.
- Developing full-stack features including real-time data sync, user authentication, and Firebase Hosting for live cloud deployment.
- Delivered a responsive, cross-platform UI, improving accessibility across devices and enhancing user engagement.
- Implemented a CI/CD pipeline with GitHub Actions, reducing manual deployment effort by 40% and maintained code quality through Git version control and structured peer reviews.

Application Developer, SchoolTalkz - Ecopez Technologies Private Limited **May 2023 – Aug 2023**
- Collaborated with Product Leaders to design and develop a software application for School talks, enhancing user interaction and engagement.
- Coordinated with the development team to build a school student community application, resulting in a 50% increase in user engagement.
- Leveraged Java, JavaScript, HTML, and CSS to enhance application efficiency and optimize the user experience.

Backend Application Developer Intern, Arihant Gyp Ply And Lam **Aug 2021 – Dec 2021**
- Developed services to support the sales memo use case and deployed the application in Amazon Elastic Cloud instances, resulting in a 75% improvement in system reliability and performance.
- Scaled the service in AWS through Auto Scaling and Load Balancing, handling increased traffic and ensuring seamless performance.
- Utilized HTML, CSS, Java, and JavaScript to enhance application performance and user experience.

ACADEMIC PROJECTS

RAG System for Email Queries-GitHub-Rag-System **Sep 2024 - Dec 2024**
- Implemented an advanced Retrieval-Augmented Generation pipeline with ChromaDB for context-rich email query handling.
- Boosted domain-specific accuracy by 25% through fine-tuning a Gemma LLM with LoRA using Databricks Dolly datasets.
- Streamlined email data retrieval by integrating Google Takeout parsing and vector embeddings.
- Orchestrated multi-step AI workflows with LangChain, significantly reducing manual oversight.
- Leveraged Python, LangChain, ChromaDB, LoRA, GPT4All, and llama.cpp for robust development and deployment.

Real-Time Sports Score Updates-GitHub-Score_Update **Apr 2024 – June 2024**
- Developed a distributed publish-subscribe system using Spring Boot, enabling real-time sports score updates with sub-second latency.
- Designed a fault-tolerant leader election mechanism, reducing broker recovery time by 40% and improving system resilience.
- Maintained 99% message reliability under concurrent loads through logical clock-based data consistency and concurrency control and Scaled the system horizontally to manage a 30% increase in real-time traffic without performance degradation.
- Applied Java concurrency, RESTful APIs, and distributed algorithms to ensure high-throughput, scalable deployments.

Automated Simulation Garden-GitHub-Automated_Garden **Apr 2024 – June 2024**
- Led a collaborative Agile team to build an interactive simulation system with a responsive JavaFX UI and real-time data ingestion of weather and garden metrics.
- Applied core Object-Oriented Analysis and Design (OOAD) principles such as abstraction, inheritance, and polymorphism to structure reusable and scalable components.
- Enhanced observability by simulating dynamic ecosystem behavior and achieved 90% reliability through concurrency control and fault recovery.