RANJITHA NARASIMHAMURTHY

Software Engineer | Backend Developer | Cloud Enthusiast

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Master's student in Computer Science at UC Riverside with 1.5 years of professional software development experience. Seeking a Software Engineering role to contribute to building scalable, efficient, and robust software solutions.

EDUCATION

University of California Riverside, California, USA   **Sep 2024 – Dec 2025**

Master of Science in Computer Science

- **Coursework:** AI, ML, Compilers, Big Data, Information Retrieval, Algorithms, Data Mining, Spatial Computing

Visvesvaraya Technological University, Bengaluru, Karnataka, India   **Aug 2019 – Jun 2023**

Bachelor of Engineering in Computer Science

- **Coursework:** DSA, DAA, CO, Web Technology, Software Engineering, OS, DBMS, Computer Networks, Unix

TECHNICAL SKILLS

Languages: Python, Java, C++, C, C#, JavaScript, SQL, HTML, CSS, PHP

Frameworks: .NET, Spring Boot, React.js, Flask, OpenCV, OpenGL, PowerApps, SSRS

Cloud/Big Data: AWS, Azure, Apache Spark, GeoPandas, QGIS

Databases: MySQL, PostgreSQL, MongoDB, PostGIS, DynamoDB

Tools & Processes: Agile/Scrum, GitHub Actions CI/CD, Unit Testing, Microservices Architecture, Git, Docker, Postman

Operating Systems: Linux, Unix, Windows

EXPERIENCE

Software Engineer, ThoughtClan Technologies Private Limited, Bengaluru, India   **Jul 2023 – Jun 2024**

- Developed backend solutions using ASP.NET Web Forms, MVC, Web API, and .NET MAUI; implemented OAuth2.0 authentication, containerized services with Docker, and used Firebase real-time DB for secure role-based access.
- Worked on the Cart component of .NET MAUI E-commerce App with role-based views and offline order support.
- Migrated a legacy .NET Framework application to Angular, refactoring Web API endpoints, integrating OAuth security, and deploying to Firebase Hosting.
- Designed and optimized SQL schemas, boosting query performance by 25%, and implemented CI pipelines for Postman and Selenium tests.

Software Engineer Intern, ThoughtClan Technologies Private Limited   **Feb 2023 – Apr 2023**

- Performed requirement analysis and configured Spring Boot, MySQL, Node.js, and IDEs to accelerate development.
- Built and validated a Spring Boot backend with services and controllers; tested endpoints for 200+ users via Postman.
- Developed React.js booking and admin components; secured them with Firebase JWT authentication.
- Collaborated in agile sprints using Git for version control and refined features based on stakeholder feedback.

Full Stack Intern, Varcons Technologies Private Limited, Bengaluru, India   **Aug 2022 – Sep 2022**

- Conceptualized and developed a Car Service Management Platform to enhance user engagement and efficiency.
- Designed responsive web pages with databases, improving data management by 20%.

RELEVANT PROJECTS

Reddit Hybrid Search Engine | PyLucene, BERT, Flask | GitHub

- Built a search service with PyLucene indexing and BERT+FAISS retrieval, exposing Flask APIs with <50 ms latency.
- Created a PRAW-based crawler that ingests Reddit data in 10 MB chunks.
- Implemented GitHub Actions pipelines for automated builds and tests.

Compiler Optimization with LLVM | LLVM, C++, Static Analysis | GitHub

- Wrote LLVM passes in C++ for constant propagation and SSA optimizations, boosting performance by 30 %.
- Built a test harness to convert C to LLVM IR and test passes on 100+ programs.
- Followed a three-phase workflow (analysis, transform, validation) to ensure correct static optimizations.

Scalable Task Scheduler | AWS Lambda, DynamoDB

- Designed a serverless task queue using AWS Lambda, API Gateway, and DynamoDB to enable asynchronous task scheduling with sub-second latency.
- Secured RESTful APIs and integrated CloudWatch for logging and monitoring, achieving 99.9% uptime.