LALIT SUDHIR KUMTAMUKKULA

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EDUCATION

Master Of Science in Software Engineering - *Arizona State University, Tempe, Arizona* **May 2025**
Bachelor of Technology in Smart Manufacturing - *IIITDM Kancheepuram, Chennai, India* **July 2020**

TECHNICAL SKILLS

Programming Languages: C#, Java, Golang, Python, Swift, C, C++, SQL, JavaScript, TypeScript
Frameworks**:** ASP.NET Core, Spring Boot, Node.js, React, Next.js, Express, Angular
Cloud & DevOps**:** Azure, AWS (EC2, Lambda, S3), Google Cloud, Docker, Kubernetes, Jenkins, CI/CD, Terraform, Helm
Databases**:** MySQL, PostgreSQL, MongoDB, DynamoDB
Tools**:** Postman, Swagger, Figma, GitHub Actions, Jira, Apache Kafka, Agile, Microsoft Visual Studio, IntelliJ

PROFESSIONAL EXPERIENCE

Software Engineer - *Congruent Solutions Private Limited, Chennai, India* **July 2020 - July 2023**

- Played a key role in designing, developing, and optimizing CORE 2.0, a full-stack, cloud-native application built using **C#**, **.NET Core**, **Node.js,** and **ReactJS**.
- My work primarily focused on building scalable **microservices, backend API development**, **UI enhancements**, **database management**, and **system architecture** improvements, leading to significant performance and cost optimizations.
- Developed and optimized **SQL** queries for **Microsoft SQL Server**, achieving a 30% improvement in query performance and ensuring robust data management for high-volume transactional systems.
- Implemented **Redis** for caching and **Elasticsearch** for search functions, reducing data retrieval latency by 40%.
- Developed over **100 RESTful APIs** using **MVC architecture**, incorporating **RabbitMQ** for seamless inter-service communication.
- Revamped deployment architecture, transitioning from **Azure Functions** to Linux-based systemd services, leading to multi-million INR savings in annual Azure costs.
- Enhanced system communication by consolidating multiple APIs into a single API approach, improving operational efficiency by 35% across 10 internal services.
- Automated **CI/CD** pipelines using **Azure DevOps** and **Jenkins**, reducing deployment time by 50%.
- Managed **infrastructure as code (IaC)** using **Terraform** and **Helm**, ensuring consistent and repeatable deployments across multiple environments.
- Implemented monitoring and alerting systems using **Prometheus** and **Grafana**, reducing system downtime by 20% .
- Led containerization efforts, implementing **Docker** to streamline application deployment and **Kubernetes** for container orchestration, ensuring scalability, fault tolerance, and high availability
- Implemented comprehensive unit testing using **xUnit** and **NUnit** frameworks, achieving 95% code coverage and reducing production bugs by 40%.
- Collaborated with cross-functional teams in an **Agile environment**, demonstrating strong communication and problem-solving skills to deliver high-quality software solutions.

PROJECTS

Synth - Custom Programming Language (*Python* | *Git* | *GitHub*) **January 2024 - April 2024**

- Modeled and built Synth, a beginner-friendly programming language with '.synth' extension, featuring capabilities such as simple arithmetic operations, expressions, traditional iterations, and conditions.
- Formulated a Lexer, Parser and Interpreter encompassing the entire stack of language processing for Synth using **Python**.

Windkart - E-commerce Platform (*Next.js* | *MongoDB* | *Zustand* | *Tailwind CSS*) **August 2024 - December 2024**

- Developed Windkart, an E-commerce platform, using **Next.js** for the front end, MongoDB for backend data management, and Zustand for efficient state management. Implemented shopping cart functionality with persistent cart data storage and retrieval from **MongoDB**, enabling users to resume shopping across sessions.
- Designed a modern and responsive user interface using **Tailwind CSS**, enhancing the user experience and mobile accessibility.

Real-time Feature Flag Management System (*Rust* | *React*) **August 2023 - December 2023**

- Created a feature flag management system using **Rust** for the backend and **react** for the front end.
- Implemented real-time updates using **WebSockets**, allowing instant feature toggles across multiple environments.