

Lakshmi Chandrika Yarlagadda

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Professional Summary

Full-stack Software Engineer with a **Master’s degree** and **4 years of experience** building scalable cloud-native applications using **React**, **C#**, **.NET**, **Java (Spring Boot)**, and **Azure**. Skilled in the full software development lifecycle, with a focus on **modernizing enterprise systems** and delivering **high-performance, user-centric solutions** in **Agile** environments.

Work Experience

Module Lead Valuelabs, India	Apr 2023 – Dec 2023 Team: Collected
<ul style="list-style-type: none">Led the design and rollout of the Caseflow module, facilitated Agile ceremonies and recorded 8% improvement in team velocity.Converted the monolithic UI to single-spa micro-frontends, which reduced first-paint time by 20% with parallel loading.Refactored Spring MVC monolith into modular Spring Boot microservices for seamless microfrontend integration.Built a debt-resolution chatbot with GPT-3.5, ChromaDB, automated FAQs & payments, cut call-centre volume by 30%.Automated debtor outreach workflows with C# .NET and third parties like WebIO, Wave2, cut operational costs by 10%.Worked with the data team on SQL-to-Cassandra migration using Debezium CDC & Kafka Connect, achieved less than 0.01% data drift across 10M+ records.	
Senior Software Engineer Valuelabs, India	Jun 2022 – Apr 2023 Team: B&S
<ul style="list-style-type: none">Used Azure Load Testing to identify bottlenecks and reduced API latency by 2secs via SQL tuning and Redis caching.Migrated 10+ data-heavy microservices to Kafka Streams, trimmed dev effort by 90% and infra spend by 5%.Optimized Docker and CI pipelines for Kubernetes, cut image size by 60% and rollout time by 40% via multi-stage builds and caching.Owned 18–22% of sprint deliverables by developing React UI, .NET microservices, and APIs using Entity Framework.Embedded SonarQube and ESLint into CI, identified pre-merge bugs and code smells, cut reviewer load by 70%.Created test plans and added Cypress E2E and Jest unit tests, increasing coverage by 30% and reducing production defects.	
Software Engineer Valuelabs, India	Jun 2020 – Jun 2022 Team: DRP
<ul style="list-style-type: none">Built and tested Java Spring Boot REST APIs, wrote JUnit tests, and resolved defects from the backlog, reducing bugs by 10%.Deployed Elasticsearch with infinite scroll for global search, returning 3M+ records in less than 200 ms.Integrated Apple Pay and Google Pay for Barclays and increased annual digital payments by 65%.Modeled debtor-case BPMN flows with Camunda, shipped 20+ microservices to prod with less than 0.1% P1/P2 defects.Built a resilience library with circuit breaker, retries and alerts, adopted by 30+ services, reduced mean resolution time by 40%.Mentored 3 interns via pair programming, knowledge shares and reviews, boosted team throughput by 10%.	
Software Developer Intern Valuelabs, India	Dec 2019 – May 2020 Team: DRP
<ul style="list-style-type: none">Implemented a Camunda POC for microservice orchestration to streamline debtor-case tracking workflows.Built Cypress sanity and regression test suites for the DRP site, improving reliability and reducing post-deployment issues.Developed a Java console application to automate post-deployment data cleanup, reducing deployment time by 1 hour.	

Education

The Pennsylvania State University - University Park Master of Science in Computer Science and Engineering	GPA: 3.93/4.0 Jan 2024 – Aug 2025
Acharya Nagarjuna University - Bapatla Engineering College Bachelor of Technology in Computer Science and Engineering	GPA: 3.92/4.0 Aug 2016 – Mar 2020

Technical Skills

Languages: C#, Java, C, C++, JavaScript, TypeScript, HTML, CSS, SQL, Python
Frontend: React, Redux, Tailwind, Ant Design, single-spa, RxJS, SASS, Socket.IO, jQuery
Backend: .NET Core, Entity Framework, Node.js, Spring Boot, REST, GraphQL, gRPC, Protocol Buffers, JSON, XML, AJAX, Camunda
Data & Messaging: SQL Server, Cassandra, Redis, Kafka, Debezium, Elasticsearch
Monitoring & Observability: Prometheus, Alertmanager, Grafana, Kibana, ELK Stack, Azure Monitor
Testing: Test Driven Development (NUnit, Moq, JUnit, Jest), Integration Testing (Cypress), Functional Testing
Cloud & DevOps: Azure (Functions, AKS, API Management, Key Vault, Storage, App Insights, AAD), Docker, Kubernetes, Git, SVN
Architecture & Practices: Agile, Monolith to Microservices & Micro-frontends, Event-Driven, MVC, OOP, Design Patterns

Academic Projects

Enterprise Issue Tracker <i>Java, Spring Boot, React, MySQL, Redis, Docker</i>	Jan 2025
<ul style="list-style-type: none">Built a full-stack issue tracking platform with user authentication, role-based access control, and ticket lifecycle management.Developed frontend components with React and backend RESTful APIs using Spring Boot, Hibernate ORM and MySQL.Integrated Redis for caching and WebSockets for real-time ticket updates, reducing query latency by 40%.Containerized the application with Docker and configured environment-based deployments.	
Distributed Parallel File System <i>gRPC, C++, Distributed Systems</i>	Dec 2024
<ul style="list-style-type: none">Built a distributed file system using gRPC and Protocol Buffers to store and manage files across multiple nodes.Designed a token-based synchronization mechanism to maintain sequential consistency for up to 2^{10} clients.Implemented LRU client-side caching to reduce remote fetches, lowering access latency by 25%.Created a centralized metadata server to handle striping, file tracking, and token coordination.	
RAG-Based NLP Tutor <i>RAG, ChromaDB, Sentence Transformers, GPT-3.5, Streamlit</i>	May 2025
<ul style="list-style-type: none">Delivered 85% accurate, citation-grounded answers by fine-tuning a RAG pipeline on 10k+ arXiv papers.Reduced retrieval latency to 500ms using automated ChromaDB indexing of 50k+ embeddings with Sentence-Transformers.Boosted answer relevance by 30% via hybrid semantic search + BM25 re-ranking and GPT-3.5 multi-hop reasoning.Deployed on Streamlit, featuring summaries, paper comparisons, and citation graph visualization.	

Awards & Accomplishments

Star of the Quarter (Q2 22, Q1 23) — For on-time, defect-free delivery.
Star of the Month (Jun 21, Mar 22, Nov 22, Mar 23, Sep 23) — For initiatives, collaboration, exceeding expectations.
Thank the Engineer Award (Aug 2023) — Recognized for driving Zeebe’s successful transition from proof-of-concept to live production.
Client Recognition — Spotlights in two consecutive townhalls for resolving high-priority tickets and delivering complex features.
Learning Assistant (Python, Penn State, 5 semesters) — supported students with coursework and assignments.