Sriharsha Ramachandra

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CORE TECHNICAL SKILLS

Languages: Java, Python, Node.js, Javascript, Typescript, Go, C++
Frameworks: Spring Boot, NestJS, FastAPI, Django, React.js, Angular, Vue.js,
Cloud: AWS (IAM, Lambda, ECS, EC2, S3, RDS), GCP (Workflows, Firebase), Terraform
AI/ML: LangChain, OpenAI Whisper, Polly, Transformers, PyTorch, TensorFlow, Scikit-learn
Tools: GitHub Actions, Jenkins, Docker, Kubernetes, Datadog, New Relic, Vault
Databases: PostgreSQL, MongoDB, Cassandra, MySQL, Redis, Oracle, IBM DB2

PERSONAL AI/LLM PROJECTS

- Reduced research time by 15% for novice researchers by integrating LLMs with RAG, Gen-AI via LangChain, ChromaDB, and OpenAI to filter relevant journal recommendations, which allowed to quickly find the papers.
- Developed a real-time voice assistant leveraging OpenAI Whisper for speech-to-text and Amazon Polly for text-to-speech, achieving a 95% accuracy rate in voice command recognition.
- Constructed a pipeline for generating alternative text for scientific figures, improving image descriptions by 90% and receiving accolades from the senior engineering team.
- Created agent-based AI tools to drive user engagement, improving conversions by over 100%.

PROFESSIONAL EXPERIENCE

Senior Full Stack Engineer (R&D)
Taylor & Francis Technology Services LLP | Aug 2022 – Present

- Transitioned legacy monolith application to a microservices architecture using Java-17 and Spring boot, decreasing deployment times by 60% and improving system uptime to 99.99% while enhancing overall scalability.
- Architected a retraining pipeline using OpenSearch, Docker, PostgreSQL, EC2, and GitHub Actions.
- Led a team of ten engineers in building a new LLM-driven feature using Python with Fast API, resulting in a 15% increase in user engagement and a top-three ranking in an internal innovation challenge.

- Leveraged A/B testing pipeline leveraging DVC and Kappa statistical analysis, boosting model efficacy by fine tuning and achieving top 10 ranking in internal hackathon for innovative approach.
- Orchestrated serverless architecture migration leveraging AWS Lambda and SQS, resulting in a 40% reduction in infrastructure costs and a 25% improvement in application response time.
- Spearheaded the development of a knowledge center leveraging LLMs and Gen-AI to categorize xml article content, boosting SEO traffic by 62% and enhancing user engagement by improving content discoverability.
- Catalyzed the creation of the sentiment analysis dashboard, that processed 500 reviews daily, and identified findings to fix the three biggest causes of crashes, with a single sprint.
- Automated EPUB enhancement using Node js, AWS Bedrock and Claude LLMs, creating a pipeline to segregate images, equations, code blocks, scriptures, and text, processing 100 articles weekly.
- Elevated code quality across team by implementing static analysis tools and conducting over 100 code reviews, leading to a 30% reduction in critical production incidents.

Lead Engineer, Co-Founder
RQB Technologies | Jan 2021 – Aug 2022

- Converted legacy social platform to microservices using Java 17, RabbitMQ, and Angular.
- Created a Job Management Service by integrating distributed banking systems, resulting in enhanced system monitoring and real-time alerts, decreasing issue identification time by 25%.
- Architected scalable data infrastructure to support rapid growth of Coin wallets, handling 2M+ daily transactions with 99.99% uptime that improved user experience.
- Re-architected a slow, memory-heavy Spring Boot webhook (4–5s latency, heap growth causing outages) into an event-driven, two-step pipeline on AWS. A lightweight Lambda now receives the call and asynchronously triggers a compute Lambda/API for data-intensive processing, with SQS (+ DLQ) for retries and deadlocks. Result: faster acknowledgements, stable memory, and scale to ~10M webhook calls.
- Engineered scalable media features like "Reels" using Cassandra and region-based popularity algorithms.
- Pioneered a Go-based video transcoding solution and seamlessly connected with adaptive streaming technologies, reducing video storage costs by 40% through optimized compression algorithms.
- Implemented crypto wallet on SKALE-USDC blockchain (60M+ transactions) with support for EVM/non-EVM chains.

Lead Consultant - Technology
TechChefs | Jun 2020 – Jan 2021

- Captained command-line interface (CLI) tools, cutting down data migration times by 50% and slashing CI/CD pipeline errors by 25% for enhanced software reliability.
- Constructed and validated 15+ mock services with NestJS and Postman, accelerating integration testing cycles by 40% and enabling parallel development across distributed teams.
- Spearheaded the team's shift to Test-Driven Development (TDD) and promoted robust design documentation, leading to a 20% decrease in code rework and improving overall software quality.

Application Engineer
DXC Technologies | Jun 2018 – Feb 2019

- Rebuilt legacy desktop applications by migrating to modern Angular-based SPAs, resulting in 60% faster loading times and a 40% increase in user engagement across all segments.
- Automated validation of SOAP-XML contracts and error detection in data pipelines.
- Pioneered RESTful API adoption and service modularization.

EARLY CAREER

Project Lead – Tata Consultancy Services
Jul 2015 – Mar 2018 - Directed migration from Java 6 to Java 8 and Monolith to Microservices. - Introduced REST APIs and trained teams on SOLID principles.

Module Lead / Software Developer – Tata Consultancy Services
Sep 2010 – Jul 2015 - Automated deployment processes and implemented high-reliability scripts. - Recognized with Star of the Quarter award and Best Team award.

EDUCATION & CERTIFICATIONS

M.Tech in Artificial Intelligence and Machine Learning (In Progress)
Birla Institute of Technology and Science, Pilani | Nov 2024 – Nov 2026 (Est.)

B.Tech in Electronics and Communication Engineering
Gayathri Vidya Parishad College of Engineering

Certifications:
- AWS Certified Solutions Architect – Associate

AWARDS & HIGHLIGHTS
- **Top Team Award:** Architected NLP-based journal recommender at Taylor and Francis Technology Services LLP

- **Star of the Quarter** at TCS
- **Earned a perfect 100% score** in mathematics evaluations, excelling in statistics and probability which honed expertise in machine learning model optimization and contributed to 15% faster research times.
- **CAT Top 1 percentile** in Logical Reasoning and Quantitative aptitude