

Ramyalakshmi Sundaramoorthy

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SUMMARY

Software Engineer with **3.5+ years of experience** in **Java backend development** with a focus on **Spring Boot, cloud technologies, and CI/CD pipelines**. Expertise in optimizing databases, microservices, and CI/CD pipelines while mentoring peers and delivering innovative, cost-effective solutions. Seeking to contribute technical expertise and leadership in a backend development role.

PROFESSIONAL EXPERIENCE

Software Engineer Intern | Arizona State University | Remote

December 2024 - Present

- Develop a Python pipeline to process PPT files from AWS S3, convert into XML/JSON data using LLMs (Anthropic Claude, Amazon Nova Pro) via AWS Bedrock, and integrate with Neo4j GraphQL for scalable data storage and course relationship management.

Software Engineer II | Thermo Fisher Scientific | India

July 2019 - December 2022

- Led architectural assessments and developed scalable solutions with **Java** and **Spring Boot** and **data access frameworks JPA, JDBC**.
- Architected and maintained a **PostgreSQL** database handling 50M+ records, ensuring high availability.
- Boosted system performance by 20% by integrating **AWS SQS, SNS, and S3** into the Order Tracking System, reducing latency and enhancing real-time data processing speed, driving a **\$3M revenue** increase post-launch.
- Spearheaded **AWS ECS to EKS** migration of 15+ microservices, optimizing resources, and achieving a 12% reduction in AWS costs.
- Migrated 15+ CI/CD pipelines from **Jenkins to GitHub Actions**, streamlining workflows and enhancing automation efficiency.
- Oversaw CI/CD for 10+ microservices, ensuring code quality through pull requests, reviews, and testing, reducing production bugs by 20%.
- Developed **Spring Boot** applications with secure and highly reusable **RESTful APIs**, unit tests (**JUnit**), achieving 90% code coverage.
- Owned the analysis, implementation, and ongoing maintenance of the Rules and SKUs engine, reducing project costs by around 9%.
- Automated deployment, static code analysis and security scans in **Jenkins** reduced costs by ~8% for the organization.
- Led the migration of Jenkins and mentored junior team members, fostering skill development and knowledge sharing.
- Designed and implemented metrics dashboards in **Splunk** to monitor 10+ applications and collaborated within **SAFe Agile SDLC**.

Intern | Honeywell | India

February 2019 - June 2019

- Created a Python **Django**-based tool for ECR Cycle time prediction, incorporating various **machine learning** algorithms and an intuitive graphical user interface GUI for data upload, model execution, and comparative analysis of model outcomes.

ACADEMIC PROJECTS

MentorConneXion

A mentor-mentee matching system using Python and AWS services DynamoDB, Lambda, S3, IAM, and SES to automate mentor-mentee pairings based on criteria such as age, gender, availability, and preferences, with automated email notifications.

ContentSwift CDN

A content delivery network (CDN) in Python. Includes implementing caching for improved performance, security measures, and real-time monitoring. Used Kubernetes and deployed MongoDB and PostgreSQL for data management(sharing and partitioning).

BeTheBestYou - A wellness tracking App

The Guardian Angel Android app is a holistic well-being solution, combining physical health, mental health, and personal goals, featuring anomaly detection, recommendations for nearby medical facilities, and emergency contact initiation in critical situations.

ML Tool to predict common diseases based on symptoms

Created a predictive tool for common diseases from symptoms, utilizing web scraping to extract medical data from relevant websites and building an 86% accurate ML model in Python, NLP, NLTK, and Scikit-learn.

Sentiment Analysis

Engineered a sentiment analysis tool employing TensorFlow and deep neural networks, trained on a dataset of 40k positive and negative sentences, achieving an impressive 89% accuracy. Leveraged expertise in Python, TensorFlow, NLTK, and Django for project development.

EDUCATION

Master of Science in Computer Science

Arizona State University, Tempe, AZ

December 2024

CGPA 4.0/4.0

Bachelor of Technology in Computer Science and Engineering

Amrita Vishwa Vidyapeetham, Bangalore, India

June 2019

CGPA 8.66/10

TECHNICAL SKILLS

Programming Languages and Frameworks: **Java, Python, C/C+, SpringBoot**, Django, Maven, HTML, Node.js.

Tools and Technologies: **Docker, AWS** (EC2, EKS, ECS, RDS, IAM, DynamoDB, CloudWatch, Lambda, Bedrock), LLM, Elasticsearch, Redis, Apache Kafka, Git, GitHub, Jenkins, SQL, NoSQL, MySQL, **PostgreSQL, Neo4j, MongoDB**, Android, Web services, SonarQube, Splunk, Design patterns, Linux.

ACHIEVEMENTS AND CERTIFICATIONS

- Placed 2nd in Opportunity Hack **2024** for **Steam Super Heroes** conducted by ASU.
- Awarded 'You Made a Difference' in Q2 2021 from Thermo Fisher Scientific for leading Rules and Skus Engine implementation.
- Achieved 104th place in ICPC regionals 2017 and 8th place in India x Russia boot camp by ACM ICPC and Codeforces.