Aravind.M.S

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EXPERIENCE

Product Engineer Intern

Smartail

- Developed a module to export content in LaTeX-editable Word format, reducing content formatting time by 30%.
- Engineered a question classification system based on cognitive complexity, automating a previously manual process and improving overall classification accuracy by 20%.
- Optimized content management workflows to streamline creation and organization of complex data structures, improving operational efficiency by 35%.
- Developed full-stack solutions using Angular, Spring Boot, Flask, and MongoDB; implemented containerization with Docker and CI/CD pipelines with GitLab to ensure efficient, consistent deployments.

Education

Coimbatore Institute of Technology

M.Sc in Datascience (Integrated)

Projects

<u>Revise Automate</u> | *Python*, *Git*

- Built a productivity tool to automate daily DSA revision by integrating Notion, email, and Google Calendar, sending filtered questions to revise each day.
- Implemented features for question fetching, daily email reminders, and calendar task scheduling, reducing revision time by 80% to 90% while improving task completion rates.
- Designed a modular and scalable system with API integration, authentication, and logging for maintainability.

<u>Milo</u> | Spring Boot, PostgreSQL, Redis, RabbitMQ, Java, Go, Docker, Git

- Engineered a scalable movie ticket backend with microservices for caching, messaging, and load balancing.
- Built JWT-based auth and used PostgreSQL for consistent, high-performance data storage.
- Used Redis with Lua scripts for atomic seat locking, reducing reservation conflicts by 40%, and RabbitMQ for async processing.
- Containerized 3 Spring Boot services, Redis, PostgreSQL, RabbitMQ, and a Go-based load balancer via Docker Compose, with Cron jobs for expiring seat cleanup.

Textify | Kotlin, Jetpack Compose, Python, Flask, AWS EC2, MongoDB, Git

- Built a privacy-first Android keyboard using Jetpack Compose and an embedded n-gram model for offline next-word prediction.
- Leveraged Chaquopy for on-device Python-based local training, adapting to user typing habits.
- Designed a federated learning backend to aggregate and redistribute model updates without exposing user data.
- Shared only weight updates, enabling global improvements while ensuring complete on-device privacy.

TECHNICAL SKILLS

Languages: Python, Java, TypeScript, Kotlin, HTML/CSS, SQL, NoSQL Frameworks: SpringBoot, Flask, Angular, JetPack Compose, TensorFlow, PyTorch Databases: PostgreSQL, MySQL, MongoDB, Redis Tools and technologies: Git, Docker, AWS, Google Cloud Platform, Linux

Achievements

- Winner of Hacktrix 2.0 GenAI Hackathon, organized by GDC of SKCT College, with over 2,500 participants.
- Contributed to Classiq's quantum computing library by implementing the BB84 QKD Protocol.
- Published two research papers: "Sentiment Analysis of Flipkart Dataset using Naïve Bayes Classifier" exploring customer sentiment, and "Heart-Mind Harmony: Predicting Stress from Heart Rate" focusing on health monitoring.
- Google Advanced Data Analytics Certified, Earned QBronze Diploma in Quantum Computing
- Part of the organizing committee for Melinia Hackathon, the flagship event of Melinia2k25, contributing to event planning and execution.

CGPA: 8.4/10 (till 7th semester) Oct 2021 - June 2026

Dec 2024 – Apr 2025

Oct 2024 - Dec 2024

Mar 2025 - Apr 2025

July 2024 - Nov 2024 Chennai