

Arun Sakthi Anand M

+91-9843965600 | arunsakthianand@gmail.com | LinkedIn | GitHub | Website

EXECUTIVE SUMMARY

Full-stack Software Engineer specializing in designing and developing **scalable, event-driven, and resilient distributed systems**. Experienced in building production-grade microservices and real-time platforms with **Spring Boot** and **Angular**. Currently expanding expertise in **Networking, Cyber Security, and Cloud Computing**.

EDUCATION

Bachelor of Technology in Electrical Engineering

Indian Institute of Technology – Hyderabad

Hyderabad, India

Aug. 2019 – May. 2023

- Relevant Coursework: Data Structures and Algorithms, Database Systems, Computer Networks, Intro to Computing, Intro to AI, Internet of Things, Digital System Design

EXPERIENCE

Lead Engineer - Notification Platform, Air India (Tata Group)

June 2023 – Present

- Designed and implemented an asynchronous, scalable push notification service (**Spring Boot + Firebase/APNs**) leveraging non-blocking I/O and batched message queues, achieving a **60% cost reduction** and **3x lower response latency** under peak load.
- Developed internal **notification dashboard** enabling non-technical analysts to launch campaigns without database access, reducing turnaround time from hours to minutes.
- Engineered **Preference Management system** backed by **PostgreSQL** with indexed queries and merged DB calls, improving lookup latency by **70%**.
- Contributed to Air India-Vistara merger systems migration, scaling platforms to handle multi-TB production data; recognized with the **High Flyer Award** for the same
- Built components for Air India's **search widget** using StencilJS and AngularJS, and led website upgrade from **Angular 13** to **Angular 18** improving performance and maintainability.

Software Developer Intern, KPIT Technologies

May 2022 – July 2022

- Worked on **QEMU Spice Protocols** for remote VM access.

PROJECTS

CipheRing Backend API | Spring Boot • MongoDB • Firebase • AWS • Docker

- Developed production-grade RESTful microservice using **Spring Boot 3.5** and **Java 25** with **OpenAPI 3.0** contract-first design and Firebase JWT-based RBAC.
- Built automated **CI/CD pipeline** via GitHub Actions and Docker for zero-downtime deployments on **AWS Elastic Beanstalk**, ensuring 99.9% up-time with API health checks and auto-scaling.
- Implemented enterprise-grade security with custom JWT filters, Firebase custom claims, strict CORS, input validation, and structured exception handling.

Interview Organizer Platform | Spring Boot • Angular 20 • MongoDB • JWT • Typescript

- Built full-stack interview management platform with 40+ REST APIs, JWT (access/refresh) authentication, and role-based access across different user types.
- Engineered Angular 20 front-end with signal-based state management and reusable components including role dashboards, OTP verification, and real-time notifications.
- Optimized MongoDB schema with indexed lookups, advanced filtering, and transactional operations.
- Integrated automated email/SMS notifications for interview workflows, cutting scheduling time.

Voice-Controlled Toy Car | Deep Learning • Signal Processing • Python • Arduino

- Built voice-driven toy car executing 5 speech commands via an **LSTM model** (90% accuracy) using MFCC-based audio features.
- Integrated ML inference with Arduino to control DC motors through H-bridge circuit, demonstrating end-to-end hardware-AI integration.

TECHNICAL SKILLS

Languages: Java (Proficient), JavaScript/TypeScript, C++, Python

Frameworks: Spring Boot, Angular, Node.js, React

Databases & Messaging: PostgreSQL, MongoDB, Redis, Apache Kafka, Azure Service Bus

DevOps & Cloud: Docker, Kubernetes, AWS (Elastic Beanstalk, S3, EC2), GitHub Actions, Azure

Others: REST API Design, OpenAPI/Swagger, Microservices, CI/CD, System Design

ACHIEVEMENTS

Joint Entrance Exam (JEE) Mains All India Rank 737 2019

Joint Entrance Exam (JEE) Advanced All India Rank 1255 2019

National Talent Search Exam (NTSE) Scholar 2017

Kishore Vaigyanik Protsahan Yojana (KVPY) Scholar with All India Rank 144 2018

EXTRACURRICULAR

Leadership & Initiatives

- Elected **President** of the Student Gymkhana, leading IIT Hyderabad's safe post-COVID reopening—making it the first IIT to resume 100% offline operations.
- Initiated a **Student Activity Center** for tech and cultural clubs, and conceptualized the institute's first Inter-Departmental Techno-Cultural-Sports Fest engaging 700+ participants.
- Established IIT Hyderabad's first **Alumni Association framework** and introduced the role of Alumni Secretary to strengthen alumni relations.
- Served as **Transport Secretary**, coordinating safe travel logistics for students

Sports & Team

- Represented IIT Hyderabad in **Hockey** since first year and captained the team at the Inter-IIT Sports Meet, demonstrating teamwork, persistence, and leadership.