

Arun Sakthi Anand M

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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.