

JONATTAN SAMRAJ

FS and AI Engineer

Kumaraguru College of Technology
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SUMMARY

Passionate Software Engineer and Backend Developer with a strong foundation in Java, Spring Boot, RESTful API design, and cloud-based application development. My journey began at age 9 with game development, evolving into expertise across web, mobile, and backend systems. Experienced in API development, microservices architecture, container orchestration (Docker, Kubernetes), and CI/CD pipelines (Jenkins, GitHub Actions). Proficient in modern frameworks like React.js, Next.js, and Tailwind CSS, with hands-on knowledge in AWS, PostgreSQL, and security-driven software engineering.

WORK EXPERIENCE | SKILLS DEVELOPED

Senior Software Engineer, FRSLABS Research

May 2026

Full Stack Engineer Intern, Clear (Cleartax)

Sept 2024 - May 2026

- Built and maintained reliable backend services with a focus on system correctness, observability, and fault tolerance, aligning with high-reliability engineering environments.

Technical Expertise: Skilled in Python, REST APIs, and microservices architecture with AWS, Docker, and CI/CD (GitHub Actions, Jenkins). Experienced with PostgreSQL, Redis.

Embedded & Analytics Lead, Team Sea Sakthi

Sept 2024 - Sept 2025

- Led the design and development of embedded systems for autonomous marine/aerial platforms, integrating sensors, actuators, and real-time control architectures.
- Developed and validated control algorithms (PID-based and state-space approaches) for stability and trajectory tracking under varying operating conditions.
- Conducted testing and validation through Software-in-the-Loop (SIL) and Hardware-in-the-Loop (HIL) frameworks to verify system behavior before deployment.

Technical Expertise: Skilled in embedded systems development, control system design, and real-time system integration using C/C++, Unity and Unreal. Experienced in implementing control algorithms (PID, state-space methods), sensor interfacing, and hardware-software integration. Familiar with SIL/HIL testing, communication protocols, and system-level simulation.

Innovation Engineer Trainee, Forge Innovation & Ventures

Aug 2024 - Feb 2025

AI & Cloud Intern, Edunet Foundation

January 2024

ADAS, Embedded System and Telemetry, Team Sea Sakthi

Nov 2023 - Aug 2024

EDUCATION

BTech, Artificial Intelligence and Data Science Nov 2022 - May 2026
Kumaraguru College of Technology, Coimbatore

General Computer Science Jun 2020 - Mar 2022
Century Foundation Hr. SEC

CERTIFICATIONS

Google Android Developer - AICTE NEAT
SEP - NOV 2023

Machine Learning Foundations - AWS Academy
MAY - JULY 2023

AI&ML Virtual Internship AWS - AICTE NEAT
MAY - JULY 2023

HCLTech Code4YOUth - HCL TECH
MAR - JUNE 2023

Cloud Foundations - AWS Academy
APR - MAY 2023

Web Technologies & Designing - Apollo Edu Ins
JULY 2017, 18, 19

IT Fundamentals and MS Office - TCEDS
MAR 2014

AWARDS & ACHIEVEMENTS

-  **Arihant Award**, Kumaraguru College of Technology, 2025
-  **Innovation Prize**, Monaco Energy Boat Challenge, 2024
-  **Town Hall Cup**, Monaco Energy Boat Challenge, 2024
-  **Mahatma Ghandi Award**, Kumaraguru Institutions, 2023
-  **Design Prize**, Monaco Energy Boat Challenge, 2024
-  **CyberScript CO-OP Dev Lead**, Cyberpunk 2077, 2022

PROJECTS Team Sea Sakthi, Cyberpunk 2077 Multiplayer mod, Pokéfort, Ai-Engine - [View projects on my portfolio](#)

ADDITIONAL INFORMATION

- Strong foundation in Java 8+, J2EE, Spring Boot, REST API, OpenAPI 3.x, OAuth 2.0, and microservices architecture.
- Skilled in AWS, Docker, Kubernetes, CI/CD pipelines, Infrastructure as Code, and API security best practices.
- Proficient with Kafka, RabbitMQ, Redis, PostgreSQL, MySQL, and MongoDB.
- Experienced in React.js, Next.js, FastAPI, and DataDog for dashboard development and system observability.
- Adept at unit testing (JUnit, Mockito), event-based systems, and secure software design.
- Excellent communication, leadership, and team collaboration skills; experienced in international projects.
- Languages: English, Tamil, Malayalam (S-1), French (S-1)

[Contact Me](#)