M.A.M. Akmal

Full-Stack Software Engineer | React, Next.js, Spring Boot, Node.js

+94 76 113 6787 | m.akmalalavi@gmail.com | linkedin.com/in/akmal-alavi | github.com/iamakmal | Portfolio
Colombo, Sri Lanka

PROFESSIONAL SUMMARY

Full-Stack Software Engineer with 1 year of production experience at Rootcode building enterprise applications using React and Next.js, and hands-on backend development using Spring Boot, and Node.js through multiple real-world projects. During my Internship at Rootcode, I contributed to Skapp, an open-source business platform, by migrating core modules, delivering 5+ major features, and improving accessibility to WCAG standards. Strong foundation in modern frontend architecture, API Integration, state management, REST API design, and Agile development practices, with experience building end-to-end features across web and mobile platforms.

TECHNICAL SKILLS

Languages: JavaScript, TypeScript, Java, SQL, HTML, CSS
Frontend: React, Next.js, React Native, Zustand, Material UI, Tailwind CSS, Bootstrap
Backend: Spring Boot, Node.js, Express.js, NestJS, REST APIs
Databases: MySQL, MongoDB, Firebase
Testing: Jest, React Testing Library, JUnit, Mockito
Tools & Platforms: Git, GitHub, Postman, Figma, Vercel, Docker, Agile/Scrum

PROFESSIONAL EXPERIENCE

Rootcode | Intern Software Engineer　　　　　August 2024 – July 2025
Colombo, Sri Lanka

- Migrated and refactored core modules (Attendance, People, Leave) from existing MyLeave Application into Skapp, improving maintainability and consistency across the codebase.
- Standardized API integration using TanStack Query and implemented reusable UI components with Material UI.
- Contributed to the frontend implementation of multiple enterprise features including User Limiting, Module Selection for Super Admins, Out of Office Google Calendar integration, and Quick Setup onboarding flow.
- Developed the frontend for Skapp Admin Portal, a dedicated tenant management application, including advanced search/filtering, detailed tenant profiles, and Google Analytics action logs monitoring.
- Improved platform accessibility to WCAG standards through improved keyboard navigation, comprehensive ARIA labeling, and compliant color contrast ratios.
- Wrote unit tests using Jest and React Testing Library and actively participated in code reviews.
- Collaborated in cross-functional Agile teams following sprint-based development cycles with daily standups, sprint planning, retrospectives, and iterative feature delivery.

PROJECTS

Task Management Application with CI/CD and Cloud Deployment

- Built and deployed a multi-container full-stack application on AWS EC2 using Docker and Docker Compose featuring separate services for frontend, backend, and MySQL database
- Configured Nginx as a reverse proxy to securely route external traffic to internal services
- Implemented an automated CI/CD pipeline using GitHub Actions that executes tests, builds Docker images, pushes them to Docker Hub, and deploys updates to EC2
- **Technologies:** AWS EC2, Docker, Docker Compose, Nginx, GitHub Actions, MySQL, Next.js, Java Spring Boot
- **GitHub:** github.com/iamakmal/task-management

Mobile App for Strawberry Pollinating Rover

- Developed a mobile application to monitor and control an autonomous rover performing strawberry pollination
- Integrated an interactive 3D model (Three.js) to visualize near real-time rover movement and pollination status
- Implemented intuitive data visualization dashboards for analytics and operational insights
- **Technologies:** React Native Expo, Three.js
- **GitHub:** github.com/IT21292422/Strawberry-Rover-Mobile

Timetable Management System
- Developed a secure RESTful API for managing a university's timetable system with comprehensive course management
- Implemented session scheduling, role-based access control and JWT authentication
- Implemented comprehensive unit testing with JUnit and Mockito ensuring API reliability and code coverage
- Ensured proper error handling and data validation throughout the API
- **Technologies:** Java Spring Boot, Spring Security, MongoDB, JWT
- **GitHub:** github.com/IT21292422/timetable-management

Learner Management - Course Management System
- Developed the Learner Service microservice in a distributed Course Management System architecture
- Implemented functionality allowing learners to browse available courses, enroll in programs, and track progress
- Built detailed analytics dashboards for learner progress tracking across enrolled courses
- **Technologies:** Nest.js, Next.js, MongoDB, Tailwind CSS
- **GitHub:** github.com/IT21292422/forge

Space-Themed Website
- Developed an interactive space exploration platform integrating multiple NASA Open APIs including Astronomy Picture of the Day (APOD), EPIC, and Mars Rover for astronomical data visualization
- Deployed on Vercel with automated CI/CD pipeline ensuring continuous delivery
- **Technologies:** React, Tailwind CSS (DaisyUI), NASA APIs, Vercel
- **GitHub:** github.com/IT21292422/SpaceGo | **Live:** space-go.vercel.app

EDUCATION

Sri Lanka Institute of Information Technology (SLIIT)	Colombo, Sri Lanka
BSc in Information Technology (Specializing in Software Engineering) – WGPA: 3.52	*2021 – 2025*
Zahira College Colombo	Colombo, Sri Lanka
G.C.E. Advanced Level – 1A, 2S (ICT-A, Combined Maths-S, Physics-S) — Z-Score: 0.9456	*2020*
Esoft (Pearson)	Colombo, Sri Lanka
Diploma in Information Technology (DiTec)	*2018*
Zahira College Colombo	Colombo, Sri Lanka
G.C.E. Ordinary Level – 8A 1B	*2017*

CERTIFICATIONS

KodeKloud - 100 Days of DevOps (Linux, Git, Docker, Kubernetes, Jenkins, Ansible, Terraform)
Postman API Fundamentals Student Expert
Python for Beginners – University of Moratuwa
HackerRank Certified: Java (Basic), SQL (Basic), React (Basic), C# (Basic)

REFERENCES

Available upon request