

# M.A.M. Akmal

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Colombo, Sri Lanka

## PROFESSIONAL SUMMARY

Recent Software Engineering graduate with 1 year of production experience at Rootcode, where I developed enterprise-level business applications using Next.js and React. During my internship at Rootcode, I contributed to Skapp, an open-source business platform currently serving production users, where I migrated core modules, delivered 5+ major features, and ensured EU accessibility compliance. Experienced in modern frontend architecture, state management, API integration, and Agile development practices. Strong foundation in full-stack development with Java Spring Boot and mobile development with React Native.

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Java, HTML, CSS

**Frontend:** React, Next.js, React Native, 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 (Frontend - React/Next.js)

August 2024 – July 2025

Colombo, Sri Lanka

#### Core Contributions:

- Migrated and refactored core modules (Attendance, People, Leave) from existing MyLeave Application into Skapp, improving maintainability and consistency across the codebase.
- Applied modern React practices (component decomposition, using custom hooks, and managing state with Zustand) to improve code quality and scalability.
- Standardized API integration using TanStack Query and implemented UI components with Material UI to ensure consistency and maintainability across the application.

#### Feature Development:

- Implemented User Limiting Feature to prevent Super/People Admins from exceeding Skapp's enterprise free tier, with modal and banner feedback ensuring a seamless user experience
- Implemented "Mark Out of Office" modal to create Google Calendar Out Of Office events during leave requests, allowing users to define how meeting invitations should be declined
- Created Quick Setup Onboarding Flow for Super Admins using Driver.js, with progress tracking, step guidance, and completion animations
- Implemented a Module Selection feature enabling Super Admins to enable or disable modules based on their organization's specific requirements
- Developed the complete frontend for Skapp Admin Portal, a dedicated tenant management application, including advanced search/filtering, detailed tenant profiles, and Google Analytics action logs monitoring

#### Quality Assurance & Compliance:

- Enhanced platform accessibility to meet EU standards (WCAG) through improved keyboard navigation, comprehensive ARIA labeling, and compliant color contrast ratios
- Debugged and resolved numerous issues across all platform modules, gaining comprehensive understanding of the entire application architecture and business logic
- Participated in code reviews ensuring code quality, consistency, and adherence to team standards
- Wrote unit tests using Jest and React Testing Library, ensuring code reliability

#### Collaboration & Methodologies:

- Collaborated in cross-functional Agile teams following sprint-based development cycles with daily standups, sprint planning, retrospectives, and iterative feature delivery
- Translated Figma design specifications into pixel-perfect, responsive UI components ensuring design consistency and cross-browser compatibility

## PROJECTS

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### 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](https://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](https://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](https://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](https://github.com/IT21292422/SpaceGo) | **Live:** [space-go.vercel.app](https://space-go.vercel.app)

### HRMS - Resource Management Module

- Developed the Resource Management module in an HR system using REST API principles with loosely coupled architecture
- Implemented comprehensive inventory management, supplier relationship management, and employee resource assignment
- Enabled efficient tracking and management of company resources including devices and stationaries
- **Technologies:** MERN Stack, Bootstrap
- **GitHub:** [github.com/IT21292422/HRMS-Resource-System](https://github.com/IT21292422/HRMS-Resource-System)

## EDUCATION

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### Sri Lanka Institute of Information Technology (SLIIT)

BSc in Information Technology (Specializing in Software Engineering) – WGPA: 3.52

Colombo, Sri Lanka

2021 – 2025

### Zahira College Colombo

G.C.E. Advanced Level – 1A, 2S (ICT-A, Combined Maths-S, Physics-S) — Z-Score: 0.9456

Colombo, Sri Lanka

2020

### Esoft (Pearson)

Diploma in Information Technology (DiTec)

Colombo, Sri Lanka

2018

### Zahira College Colombo

G.C.E. Ordinary Level – 8A 1B

Colombo, Sri Lanka

2017

## CERTIFICATIONS

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Postman API Fundamentals Student Expert

Python for Beginners – University of Moratuwa

HackerRank Certified: Java (Basic), SQL (Basic), React (Basic), C# (Basic)

## REFERENCES

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Available upon request