MATHEESHA DISSANAYAKE

TRAINEE SOFTWARE ENGINEER [LinkedIn](#) | [GitHub](#)

+94767686873 | Kandy | matheeshacham08@gmail.com | www.matheesha-dissanayake.me

---

SUMMARY

A results-oriented Software Engineer with a First Class BSc (Hons) in Software Engineering and hands-on experience in full-stack development. Proficient in React, Next.js, and MERN stack, with a passion for building efficient and user-friendly web and mobile applications. Eager to contribute to a challenging software development role where I can leverage my skills in AI and augmented reality to create innovative solutions

TECHNICAL SKILLS

- **Languages:** JavaScript, TypeScript, Java, C#, C++
- **Frontend:** React, Next.js, Tailwind CSS, Three.js, GSAP, Framer Motion
- **Backend:** Node.js, Express.js, Java Spring Boot, ConvexDB
- **Databases:** MongoDB, PostgreSQL (Neon), MySQL, Firebase
- **AI/ML:** TensorFlow, PyTorch, OpenAI API
- **DevOps/Tools:** Git, Vercel, Firebase, AWS, Algolia, WebXR
- **Paradigms/Concepts:** Object-Oriented Programming (OOP), Agile Development

PROFESSIONAL EXPERIENCE

Associate Software Engineer, AIR Studios CO.   Jan 2025 - Jun 2025

Integrated Role-Based Feedback System for the NEIC Website | May 2025 - June 2025
Led the front-end development and integration for a new role-based feedback system on the NEIC website. I was responsible for architecting and building the user-facing components, including the submission forms and the secure administrator's dashboard, ensuring a seamless and responsive user experience.
- Architected a secure admin panel with dynamic filtering and reporting that streamlined data analysis, reducing the manual effort required by over 90%

Link: http://www.neic.cea.lk/feedbacks

- -

Full-Stack E-commerce Platform | ASD Camera LK | Jan 2025 - March - 2025
Problem: A local camera retailer needed to establish a strong online presence with a modern, high-performance e-commerce platform. The key challenge was to create a site that was not only fast and feature-rich for customers but also simple for non-technical staff to manage and update independently.

Solution: I architected and developed a full-stack e-commerce website from the ground up. The platform provides a seamless shopping experience for users and an intuitive, powerful admin panel that empowers the business to control its online store with no coding required.
Key Implementations & Features:
- Intuitive Content Management: Built a secure admin dashboard giving staff full CRUD (Create, Read, Update, Delete) control over products, promotional sliders, and navigation, eliminating the need for developer intervention for daily site updates.
- Advanced Product Search: Integrated Algolia to deliver an instant, typo-tolerant, and accurate search experience, allowing customers to find specific technical gear effortlessly.
- Optimized Performance & UX: Created a fully responsive UI with Next.js and Tailwind CSS, leveraging Framer Motion for smooth animations that increase user engagement and provide a premium feel.
- Scalable Backend: Utilized Firebase and Cloud Firestore for a robust, real-time backend capable of handling growing inventory and user data efficiently.

Live Link: https://asdcameralk.vercel.app
Technologies: Next.js, Tailwind CSS, Firebase, Cloud Firestore, Algolia, Framer Motion

----

Intern Software Engineer, AIR Studios CO.   Jun 2024 - Dec 2024

- Developed and maintained full-stack web applications using the MERN stack.
- Learned and developed mobile applications using Expo, React Native, Tailwind CSS, and MongoDB.
- Proactively learned and applied Three.js and AR implementation for web-based projects upon joining the team.
- Identified and resolved software defects and bugs in various projects, notably improving the stability of the NEIC website.
- Designing and implementing 3D interactive elements using Three.js.
- Collaborating with the team to enhance user interfaces and improve application performance.
- Conducting testing and debugging to ensure high-quality deliverables

EDUCATION

BSc (Hons) Software Engineering, First Class | 2022 - 2025
SLIIT City UNI (affiliated by University of Bedfordshire, UK)

St' Anthony's College, Kandy | 2007 - 2020

PROJECTS

Final Year Research Project: AI-Powered AR Furniture Platform
- **Project Context**: This application was developed as my final year research project for my BSc (Hons) in Software Engineering, demonstrating the practical application of AI and AR in e-commerce.
- **Problem Solved**: The platform addresses key online shopping challenges. It allows users to visualize furniture in their own space using AR and offers intelligent product recommendations by analyzing images of their room.
- **Key Features**:
  - AI Recommendation Engine: Developed a feature using **TensorFlow** where users can upload an image of their space to receive AI-driven furniture recommendations that match their style.
  - AR Visualization: Built a real-time AR viewer with **Three.js** and **WebXR**, allowing customers to place 3D furniture models in their environment.
  - 24/7 AI Assistant: Implemented an AI chatbot using **PyTorch** to provide instant customer support and answer product inquiries around the clock.
  - Full E-commerce Functionality: Engineered as a complete **MERN stack** application with the **Stripe Payment Gateway** integrated for secure transactions.
- **Skills**: Three.js, MERN, Agile, Tensorflow, PyTorch, WebXR, Stripe Payment Gateway, Project Management, Agile Development
- **Link**: https://furni-online.vercel.app

Smart Note App - AI-Powered Note Taking
Developed an intelligent note-taking application that leverages AI to allow users to interact with their notes conversationally. The app uses a Retrieval-Augmented Generation (RAG) pipeline to provide context-aware answers from the user's own knowledge base.

- Key Implementations:
  - Conversational AI: Engineered a RAG system using the OpenAI API and Vercel AI SDK, enabling users to "chat" with their notes and get intelligent summaries.
  - Real-time Backend & DB: Utilized Convex for its full-stack, real-time backend and database capabilities, ensuring seamless data synchronization.
  - Dynamic UI: Built a fluid and responsive user interface with Next.js and Framer Motion for a polished and engaging user experience.

- Technologies: Next.js, Convex, OpenAI API, Vercel AI SDK, TypeScript, Framer Motion

- Live Link: https://ai-notes-app-omega.vercel.app

Sleep Tracker - Full-Stack Web Application
Architected and built a modern, full-stack sleep tracking application to help users log, monitor, and analyze their sleep patterns through an intuitive web interface.

- Key Implementations:
  - Secure Authentication: Integrated Clerk to handle user registration and login, providing robust security and profile management.
  - Data Visualization: Implemented interactive charts and graphs to display sleep trends, giving users clear insights into their habits over time.
  - Serverless Database: Leveraged Neon's serverless PostgreSQL for efficient, scalable, and cost-effective storage of user sleep data.
  - Responsive Design: Created a fully responsive UI with Tailwind CSS, ensuring a seamless experience across desktop and mobile devices.

- Technologies: Next.js, Tailwind CSS, Neon (PostgreSQL), Clerk

- Live Link: https://sleep-tracker-psi.vercel.app/