

# RAVINDU ABEYSINGHE

## FINAL YEAR UNDERGRADUATE

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[Portfolio](#)

### INTRODUCTION

Passionate final-year Engineering undergraduate with strong interests in software development and cloud computing. Skilled in solving problems and building scalable solutions, with a solid understanding of software design patterns and architectural principles.

### WORK EXPERIENCE

#### Software Engineer - Intern | WealthOS

July 2024 - Dec 2024

##### Progress Tracker (Full-Stack Development, Automation & Deployment)

- Engineered and deployed a containerized full-stack web application for sprint analytics. Designed scalable system architecture and relational database schema, implemented backend logic for real-time data aggregation, and automated data ingestion from the Jira API.
- Handled database migrations, domain configuration, HTTPS setup, and end-to-end deployment with robust documentation.

##### Knowledge Bot (Development, Deployment & Automation)

- Developed and deployed an AI-powered Slack app using RAG architecture, with automated context extraction from Confluence and a containerized, scalable backend for efficient query resolution.
- Actively participated in Agile Scrum processes, with hands-on experience in ceremonies and managing artifacts, demonstrating a strong understanding of Agile principles.

**Technologies :** Python, Streamlit, Docker, AWS, FAISS, MongoDB, MySQL, Flask, Slack API, Jira API.

### EDUCATION

#### University of Peradeniya

BScEngHons specializing in Computer Engineering

2021 - Present

Current GPA : 3.0 / 4.0

#### St.Anthonys College

G.C.E. Advanced Level

2007 - 2019

AAC

### SELECTED PROJECTS

#### AI Powered Knowledge Management System for NRENS | Group [GitHub](#)

Jan 2025 - Present

- Final year research project focused on building an AI-driven learning assistant using Retrieval-Augmented Generation. The system enables semantic search, real-time content summarization, and human-like responses through a chatbot interface. It supports adaptive learning by delivering personalized answers based on user queries and retrieved context.
- Contribution :** Implemented the RAG architecture, designed the backend flow, CI/CD Pipeline, performed vector embeddings and semantic search to enable personalized, context-aware responses, and developed the frontend interface for user interaction.
- Technology Stack :** React, TypeScript, Python, Flask, LangChain, ChromaDB , SQLite, Docker , CI/CD Pipeline

#### Event Attendance Management System | Group [GitHub](#)

Feb 2024 - Jun 2024

- Developed a real-time event attendance management system integrating web and IoT components to streamline session tracking, attendee monitoring, and session analytics for organizers and participants.
- Contribution :** Led frontend development of the web application and display interface, including core views such as Login/Registration, Conference Rooms, Overview, and Attendee dashboards. Also designed intuitive UI layouts and implemented dynamic interactions using component-based architecture.
- Technology Stack :** React, JavaScript, Node.js, AWS , Tailwind CSS

#### Website for Netronk | Group [GitHub](#)

Feb 2024 - Mar 2024

- Contributed to the development of the official website for Netronk, aimed at presenting the services, team, and projects in a professional and dynamic manner.
- Contribution :** Implemented dynamic content sections.Focused on creating a responsive, fast-loading site architecture.
- Technology Stack :** Astro, Tailwind CSS

- Developed a modern, dynamic music website to showcase emerging artists and celebrate music culture. Configured a CI/CD pipeline with GitHub Actions for automated deployment to GitHub Pages. Planned feature enhancements are underway.
- Technology Stack : Astro, Tailwind CSS, GitHub Actions , CI/CD

Baby Development Tracking System Mobile Application | Group      [GitHub](#)      Nov 2023 - Feb 2024

- A mobile application for Doctors, Midwives, and Parents to oversee the growth of babies from 0-5 years old. It includes features like vaccination tracking, growth monitoring, and user notifications.
- **Contribution** : Developed front-end and back-end components using Java and integrated Firebase to establish and manage database connectivity.
- Technology Stack: Android Studio, Java, Firebase.

Library Management System | Group      [GitHub](#)      May 2023 - Jun 2023

- Designed and developed a web application for users to manage and monitor books, members, and lending activities within a library system.
- **Contribution** : Developed the frontend of the web application.
- Technology Stack : HTML, CSS , PHP , MySQL .

SKILLS

- **Programming Languages:** Java, TypeScript, JavaScript, Python, C#, C
- **Frameworks:** Angular, Astro, Spring Boot, Android Studio, Streamlit, Flask
- **Libraries:** React, NumPy, OpenCV, Pandas
- **Databases:** MySQL, SQLite, MongoDB, Amazon RDS, ChromaDB
- **Cloud & DevOps:** AWS, Firebase, Docker, Kubernetes
- **Tools & Platforms:** GitHub, GitLab, Bitbucket, JIRA
- **Soft Skills:** Problem Solving, Adaptability, Teamwork

CERTIFICATES

[Divide and Conquer, Sorting and Searching, and Randomized Algorithms - Meta \(Coursera\).](#)  
[Foundations of User Experience \(UX\) Design - Google \(Coursera\).](#)  
[Spring Boot \(Backend Development\) - \(Amigoscode\).](#)  
[Game Theory- Stanford\(Coursera\).](#)  
[Introduction to Internet of Things & embedded systems - University of California, Irvine \(Coursera\).](#)  
[Introduction to Frontend Development - Meta \(Coursera\).](#)  
[Introduction to Backend Development - Meta \(Coursera\).](#)  
[Supervised Machine Learning: Regression and Classification - DeepLearning.AI\(Coursera\).](#)  
[OOPs in Java - \(Great Learning\).](#)

COMPETITIONS

**ACERS Hackathon | Group:** An inter-university hackathon organized by the University of Peradeniya  
**ACERS PreCoders V10.0:** 12-hour algorithmic programming competition organized by the ACERS  
**ACERS PreCoders V9.0:** 12-hour algorithmic programming competition organized by the ACERS  
**IX 23 2023 :** An inter-university UI/UX design competition on Apple VisionPro was organized by the IEEE Student Branch of IIT.

EXTRACURRICULAR ACTIVITES

Member of the ACERS WebTeam, University of Peradeniya.      Jan 2024 - Jan 2025

Member of Project Nanathambara.      Jan 2024 - Jan 2025

Member of the Explorers Club University of Peradeniya.      2022 - Present

REFERENCES

Dr. Isuru Nawinne  
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