RAVINDU ABEYSINGHE
COMPUTER ENGINEER

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Portfolio

INTRODUCTION

Passionate Computer Engineer with strong interests in software engineering, quality assurance, cloud computing, and AI-driven solutions. 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 REST API.
- Handled database migrations, domain configuration, 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 EC2, AWS RDS, ChromaDB, MongoDB, MySQL, Flask, Slack API, Jira API.

EDUCATION

University of Peradeniya   **2021 - 2025**
BScEngHons specializing in Computer Engineering   Current GPA : 3.0 / 4.0

St.Anthonys College   **2007 - 2019**
G.C.E. Advanced Level   AAC

SELECTED PROJECTS

AI Powered Knowledge Management System for NRENS | Group   GitHub   Jun 2025 -Aug 2025

- 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, backend REST APIs, 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,AWS EC2, JWT, Docker , GitHub Actions**

Event Attendance Management System | Group   GitHub   Sept 2024 - Dec 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, display interface, and analyzed dashboards. Also designed intuitive UI layouts and implemented dynamic interactions using component-based architecture.
- Technology Stack : **React, JavaScript, Node.js, AWS EC2 , AWS Lambda, Tailwind CSS, Postman.**

Spring Boot Microservices E-Commerce Platform | Individual   GitHub   Sept 2025 - Present

- Ongoing project focused on building a microservices-based E-Commerce application showcasing modern architectural patterns. Planned enhancements include implementing an API gateway, inter-service communication, event-driven architecture with Kafka, adding observability with Grafana and Prometheus, containerizing services with Docker.
- Technology Stack : **Java, Spring Boot, Spring Cloud, OpenFeign, Kafka, Keycloak, OpenTelemetry, Docker, Kubernetes, Postman.**

CheckingCheckout Hotel Management System | Group   **GitHub : <u>Mobile</u> | <u>Web</u>**   Sept 2025 - Present
- Ongoing project on developing a full-featured hospitality management system for hotels & guesthouses, created using a multi-tenant architecture, enabling reservation, financial, and management through web and mobile platforms.
- **Contribution:** Led complete mobile app implementation & contributed to web app development, focusing on multi-tenancy, real-time data sync, and intuitive UI/UX design.
- Technology Stack : **React Native, React, TypeScript, Supabase, PostgreSQL, Tailwind CSS, shadcn/ui.**

Baby Development Tracking System Mobile Application | Group   **<u>GitHub</u>**   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   **<u>GitHub</u>**   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 & backend features of the web application.
- Technology Stack : **HTML, CSS , PHP , MySQL.**

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

CERTIFICATES
<u>**Divide and Conquer, Sorting and Searching, and Randomized Algorithms - Meta (Coursera).**</u>

<u>**Foundations of User Experience (UX) Design - Google (Coursera).**</u>

<u>**Spring Boot (Backend Development)- (Amigoscode)**</u>

<u>**Game Theory- Stanford(Coursera)**</u>

<u>**Introduction to Internet of Things & embedded systems - University of California, Irvine (Coursera).**</u>

<u>**Introduction to Frontend Development - Meta (Coursera).**</u>

<u>**Introduction to Backend Development - Meta (Coursera).**</u>

<u>**Supervised Machine Learning: Regression and Classification - DeepLearning.AI(Coursera)**</u>

<u>**OOPs in Java - (Great Learning)**</u>

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

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REFERENCES

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