

KANCHANA GAYATHRI ARIYASINGHE

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PERSONAL STATEMENT

An enthusiastic final-year Computer Engineering student with skills in programming, problem-solving, and system design. Always adept at exploring new technologies and applying them to innovative solutions.

EDUCATION

University of Jaffna

Sri Lanka

B.Sc.Eng (Hons) in Computer Engineering (Undergraduate)

April 2022 - Present

Cumulative GPA: 3.52 / 4.00 (After 5 Semesters)

PROJECTS

Potholes Detection using Advanced Object Detection Techniques (Ongoing) **January 2025 (Present)**

Researcher

- Developed a real-time pothole detection system using an ensemble of YOLOv8m and MobileNetV2 models, achieved 90.3% accuracy across challenging conditions like low-light, rain, and cluttered environments. Integrated advanced preprocessing (CycleGAN, CLAHE), model optimization, and edge deployment for scalable smart road monitoring.

Computer Lab Booking and Equipments Borrowing System

 **January 2025**

Role: Project Manager and Developer, Software Engineering

- Spearheaded development of a web-based Computer Lab Booking and Equipment Borrowing System to streamline lab reservations and equipment management for students and faculty.
- Served as Project Lead, managing scope, sprint cycles, and team task allocation via Jira, ensuring on-time delivery and cross-functional collaboration.
- Designed and implemented admin frontend using React.js, while contributing to core backend functionalities with Node.js (Express).
- Tech Stack: React.js, Node.js (Express), MongoDB, Jira, GitHub

The Smart Medicine Reminder Box

Project:  Web Application:  January 2025

- Developed the Smart Medicine Reminder Box, an IoT-based device for automated medication tracking and reminders.
- Enabled real-time scheduling via a web interface, with cloud data management powered by Firebase.
- Integrated an LCD display and servo-controlled dual compartments for organized dispensing.
- Included manual refill functionality for user-friendly maintenance and reliability.

Student Feedback Management System

 January 2024

- Built a Student Feedback Management System to collect and manage course and lecturer feedback within the faculty
- Implemented secure authentication for students, lecturers, and administrators.
- Utilized MySQL and phpMyAdmin for robust data storage and querying.
- Gained hands-on experience in full-stack web development using PHP, HTML/CSS, and MySQL.

Smart Currency Converter

 June 2025

Individual Project

- Built a full-stack web app using React.js and Node.js/Express.js to convert currencies using real-time and historical data via the Open Exchange Rates API.

Movie Finder

 June 2025

Individual Project

- Developed a full-stack movie discovery application featuring a RESTful API (Node.js/Express) and a dynamic, responsive vanilla JavaScript frontend.

CERTIFICATION & COURSES

- Java Programming Internship (One month) – [Codesoft](#)
 - AlgoXplore 1.0 Algorithm and Capture the Flag (CTF) Challenge - [NSBM](#)
 - MoraXtreme 9.0, a 12-hour coding marathon - [IEEE UOM](#)
 - TECHNOVATION 2025 | SLT-MOBITEL – AI Innovation Challenge (Finalist)
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SKILLS

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|--|---|
| • Programming Languages: Java, C++, Python | • Tools & Frameworks: Git, Jira |
| • Frameworks: React, React-Native, NodeJS | • Problem Solving |
| • Databases: MYSQL, MongoDB | • Teamwork |
| • Embedded Systems: Microcontroller Programming | • Languages: Sinhala (Native), English |

VOLUNTEERING

IESL Student Chapter - University of Jaffna
IEEE Student Member

Membership Number: S-29763
Member number: 100411452

REFERENCES

Dr. (Mrs.) P. Jeyananthan
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