



# KANCHANA GAYATHRI ARIYASINGHE

 No 31/6, Ranjan Wijerathna Mw, Rattota.

 +94 76 025 1767

 [ariyasinghekanchana@gmail.com](mailto:ariyasinghekanchana@gmail.com)

 LinkedIn : [kanchanaAriyasinghe](#)

 GitHub : [KanchanaAriyasinghe](#)

 My\_Profile: [my\\_profile](#)

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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.

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## 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)

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## 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.

## 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.

## Food Recipe Web Application

 November 2025

### **Individual Project**

- Developed an interactive Food Recipe Web Application using the MERN stack, enabling users to explore, create, and manage recipes, enhancing the cooking experience through a simple and engaging interface.

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

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## **VOLUNTEERING**

IESL Student Chapter - University of Jaffna  
IEEE Student Member

Membership Number: S-29763  
Member number: 100411452

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## **REFERENCES**

Dr. (Mrs.) P. Jeyananthan  
Head of the Department  
Dept. of Computer Engineering,  
Faculty of Engineering,  
University of Jaffna  
[pratheebea@eng.jfn.ac.lk](mailto:pratheebea@eng.jfn.ac.lk)  
+94 77 844 8679

Dr. (Mrs.) J. Jananie  
Senior Lecturer Grade II  
Department of Computer Engineering,  
Faculty of Engineering,  
University of Jaffna  
[jananie@eng.jfn.ac.lk](mailto:jananie@eng.jfn.ac.lk)  
+94 76 490 4957