

# THILINA CHANDRASEKARA



113 B/1 ,Angunawala, Peradeniya, Kandy



+9477-463-2045



[thilinachandrasedkara.tct@gmail.com](mailto:thilinachandrasedkara.tct@gmail.com)



[LinkedIn profile](#)



[My web application](#)

## ABOUT ME

A passionate and versatile developer with a BSc (Hons) in Electronics and Information Technology, specializing in mobile app development (iOS & Android), web development, machine learning, and robotics & automation. With a solid foundation in electronics and embedded systems, I build intelligent solutions that connect hardware and software, driven by innovation, problem-solving, and impactful tech projects.

## EDUCATION

### BSc (Hons) Electronics & Information Technology

2022 - Present  
UNIVERSITY OF COLOMBO

- BSc (Hons) in Electronics & Information Technology at the University of Colombo, with core knowledge in Computer Science, Applied Mathematics, Statistics, and Physics. Strong foundation in electronics, IT, programming, and analytical problem-solving.

### 2020 G.C.E Advanced Level Examination

2017 - 2019  
DHARMARAJA COLLEGE KANDY

- Physics – B
- Chemistry - B
- Combined Mathematics – C

### 2016 G.C.E Ordinary Level Examination

2006 - 2016  
D.S. SENANAYAKE COLLEGE KANDY

- 8 A's & 1 B

## PROJECTS

### WorkWay – Smart Job Finding Application using Android Studio and Firebase

- Developed a mobile application that bridges job seekers and employers with features like smart job matching, personalized job alerts, and real-time application tracking. Integrated Firebase for user authentication, job data storage, and cloud messaging. Enabled a smooth and secure experience for applicants and recruiters with intuitive UI, resume uploads, and application history.

### Lab Inventory Management System

- Developed a cross-platform inventory solution with a mobile app for students and a web application for administrators. Enabled real-time equipment tracking, automated low-stock alerts, and role-based access for secure operations. Used FreeSQLdatabase and TiinyHost for cloud sync, user authentication, and reliable multi-user functionality.

### Urban Delivery Bot

- Built a delivery robot with manual and autonomous modes using Raspberry Pi, Arduino, and IoT. Integrated Google Maps API for navigation, ultrasonic sensors for obstacle avoidance, and dual IP addressing for global IoT control. Enabled real-time GPS tracking and remote management via a custom web interface for efficient last-mile delivery.

## Simon Game using ATmega328P

- Designed an interactive memory-based game using ATmega328P, 16x2 LCD, LEDs, switches, and EEPROM. Implemented random sequence generation, level selection, buzzer feedback, and high score tracking. Enabled standalone gameplay with increasing difficulty and real-time user interaction

## Loan Management System using Machine Learning

- Designed a predictive analytics solution for loan approval and default risk using Support Vector Machines (SVM) and kernel methods. Optimized model accuracy through preprocessing, feature engineering, and hyperparameter tuning. Evaluated with confusion matrix and accuracy metrics. Enabled intelligent decision-making in financial services with automated loan risk assessment.

## KarateAI – Wearable Strike Detection

- Built an AI-powered glove using Arduino Nano 33 BLE Sense, Edge Impulse ML, and a Bluetooth web API to detect and classify karate strikes in real time. The system provides instant feedback via a browser interface, enabling athletes to monitor performance and strike accuracy. Integrated motion sensors and on-device ML for highly accurate strike recognition and training analytics.

## Gesture-Controlled Smart Fan

- Developed a portable fan controlled using Seeed XIAO and Arduino Nano 33 BLE, leveraging ML-trained motion gestures to wirelessly manage fan speed, power, and lights. Implemented real-time gesture recognition with edge inference for smooth and responsive control. The project demonstrates gesture-based IoT interaction, combining wearable sensors and embedded ML for intuitive device operation.

---

## TECHNICAL SKILLS

- |   |   |
|---|---|
| • Python – Machine Learning, Data Analysis, Scripting                           | • JavaScript / TypeScript – Web Development, React Native, Front-end/Back-end Integration |
| • C / C++ – Embedded Systems, Microcontroller Programming (ATmega328P, Arduino) | • HTML / CSS – Front-end Web Development  |
| • Java – Android App Development (Android Studio)                               | • PHP – Backend Web Development   |
|   | • SQL – Database Queries and Integration  |

---

## SOFT SKILLS

- |                     |                   |                           |
|---------------------|-------------------|---------------------------|
| • Communication     | • Problem Solving | • Teamwork and Leadership |
| • Critical Thinking | • Innovative      | • Adaptability            |

---

## EXTRACURRICULAR

- Active Member – Leo Club, University of Colombo
- Active Member – Robotics Club, University of Colombo

---

## REFERENCES

Prof. Hiran H E Jayaweera  
Professor,  
Department of Physics University of Colombo  
[hiran@phys.cmb.ac.lk](mailto:hiran@phys.cmb.ac.lk)

Dr. D D C Wickramarathna  
Doctor,  
Department of Physics University of Colombo  
[deshitha@phys.cmb.ac.lk](mailto:deshitha@phys.cmb.ac.lk)