

CHANDEEPA KUMARASIRI

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Experience

Eco Solve (Pvt) Ltd

Executive-Process Development

Kandana, Sri Lanka

March. 2025 – Present

- Spearheaded automation, production management, and product development initiatives, including a Mitsubishi PLC-based aluminum bar cutter, a microcontroller-driven heat sleeves cutter, CNC machine training, 5S implementation, LED product enhancements, PCB design, Python-based tool development, and a custom production management system to streamline factory operations.

D Samson Industries (Pvt) Ltd

Intern - Research and Development Department

Galle, Sri Lanka

Aug. 2023 – Jan. 2024

- Led the development of the RFID Vehicle Management System, Heat Transfer Sticker Printing Machine, Automatic Slipper Drilling Machine, and CNC Elastic Marking and Cutting Machine.
- Engineered 3D models to upgrade the Screen-Printing Machine using SolidWorks.
- Programmed microcontrollers, integrated pneumatic and hydraulic systems, and executed welding tasks while ensuring compliance with strict health and safety guidelines.

Star Garment (Pvt) Ltd

Quality Checker

Baddegama, Sri Lanka

2019 – 2020

- Gained hands-on experience in garment production processes and floor operations.
- Worked closely with fabric handling and applied quality standards to ensure defect-free output.
- Learned about garment quality control techniques and product inspection methods.

Little Lanka (Pvt) Ltd

Assistant Accountant

Dodangoda, Sri Lanka

2018 – 2019

- Assisted with accounting documentation, invoice preparation, and record management.
- Gained foundational knowledge of accounting procedures and administrative coordination.

Education

University of Colombo

Colombo, Sri Lanka

Bachelor of Engineering Technology in Instrumentation and Automation (Hons)

Feb. 2020 – Dec.2024

- GPA: 3.05/4.00
- Coursework:** Technical Drawing & CAD, Microcontrollers, PLCs, Electricity & Magnetism, Sensors & Transducers, FPGA, Industrial Automation, Shielding & Protection, Nuclear & Medical Instrumentation, Research Project.

Sri Lanka English Language Graduates' Association

Kadawatha, Sri Lanka

Diploma in English

Jan. 2025 – Feb. 2025

- Completed a certified English language diploma focused on grammar, communication, and academic writing.

Sololearn

Certificate Course in HTML / CSS / Python

Online

2022

National Vocational Training Institute

Certificate Course in English

Baddegama

2019

Future World IPS

Certificate Course in Graphic Design

Baddegama

2017

St. Anthony's (National) College

G.C.E. Advanced Level Examination

Baddegama

Z-Score: 2.0285 | Island Rank: 220 | District Rank: 20

2018 Engineering Technology Stream (1906640)

Technical Skills

- Programming & Software Development:** Python, Java, C#, Ladder Logic, Flask
- Automation & Industrial Control:** PLC Programming, HMI Development, SCADA Systems, Industrial Communication, Arduino, Raspberry Pi, ESP32, STM32, Sensor & Actuator Integration, Motor Drivers
- Design & Simulation:** AutoCAD, SolidWorks, Electrical & Circuit Design, PCB Design
- Industrial Systems:** Pneumatic System Design, Computer Vision, Robotics

Projects

Final Year Research: UAV-Based Remote Sensing for Field-Based Crop Management

Developed a UAV-based system for early paddy disease detection using low-cost RGB imagery and machine learning. The project involved designing a quadcopter, developing disease detection models, and creating a web application for user accessibility.

- **Tools & Technologies:** STM32F411CEU6, Raspberry Pi Camera, MPU6050, BMP280, GY-271, Neo6M GPS, Flask, Machine Learning, Random Forest Classifier, OpenCV.
- **Role & Responsibilities:** Component selection, circuit & PCB design, wiring, STM32 programming, 3D modeling, manual PCB printing, and documentation.
- **Achievement:** 1st Runner-Up in the Research and Innovation Exhibition at the 8th Annual Research Symposium, Faculty of Technology, University of Colombo, 2024.

RFID Door Lock System with Mobile Application

Developed a door lock system that uses RFID technology to grant access to authorized individuals. The system is controlled through a mobile application.

- **Tools & Technologies:** Arduino, RFID Reader, Relay Module, NodeMCU, ESP8266, Android Studio, Java.
- **Role & Responsibilities:** System design, circuit development, microcontroller programming, mobile app integration, and network communication setup.
- **Achievement:** Presented at the University Annual Research Symposium 2023 Exhibition.

Automatic Bar Cutter Machine

- Designed and developed a fully automated aluminum bar cutter capable of handling 3600 mm bars and cutting lengths from 30 mm to 600 mm (bar diameter: 25–100 mm), using Mitsubishi PLC, stepper motors, sensors, and pneumatics, featuring auto length adjustment, feeding, gripping, and cutting to maximize efficiency and minimize manual error.

Heat Sleeves Cutting Machine

- Developed a microcontroller-based heat sleeve cutting machine using NEMA 23 motors, TB6600 drivers, sensors, and an LED display, achieving high cutting accuracy and reducing manual workload through precise motion control and automation.

Android Note Application

Developed a mobile note-taking app with a clean UI and offline storage.

- Designed and developed a user-friendly Android note-taking app with offline storage using Java and Android Studio, handling UI design, coding, and testing.

Internship Projects – D. Samson Industries (Pvt) Ltd

- **PLC and HMI Project:** Designed and implemented interactive interfaces for automated industrial systems.
- **RFID Vehicle Entry/Exit Monitoring System:** Developed an RFID Vehicle Entry/Exit Monitoring System with a custom Python-based application to automate and control vehicle movement and access at factory gates.
- **CNC Elastic Marking and Cutting Machine:** Engineered a CNC solution for accurate elastic marking and cutting, boosting line productivity.

Reference

Dr. Chathurika Silva

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Declaration

I hereby declare that the foregoing particulars are true and accurate to the best of my knowledge.

20 July 2025

Chandeepra Kumarasiri