



# Chathura Gunasekara

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[medium.com/@chathura](https://medium.com/@chathura)

[Porfolio](#)

## About Me

I'm an undergraduate of University of Moratuwa engineering with a First Class CGPA (3.862), specializing in Embedded Systems and Robotics.. A leader and team player, excelling in academics, sports, and music, driven by continuous learning.

## Skills

- Programming Languages:** Python | Java | C++ | C | VHDL
- Technical Fields:** Embedded Software Engineering | Embedded Networks and IoT | Robotics and Automation | Mathematics | Software Development
- Databases:** MySQL | SQLite | NoSQL
- Tools & Services:** Git | Streamlit
- Frameworks:** FastAPI | Flask | VS Code

## Highlights

- Dean's List:** Semester 2, 3, 4, 6 and 7
- IEEEExtreme 16.0 - 2023:** All Island 15th position
- ABU RoboCon 2023:** Represented Sri Lanka
- ERU Symposium 2023:** Among best 9 final paper submissions
- International Mathematics Competition 2022 :** Represented University of Moratuwa
- University Colors Insignia:** Mens TT Team Champions (2022, 2023, 2024)
- Department Representative:** Semester 4, 5 and 6

## Education

### BSc Eng Hons, Computer Science & Engineering

University of Moratuwa

2021 - Present

Specialized in Integrated Computer Engineering | CGPA : 3.862

### Dharmaraja College - Kandy

2017 - 2019

- G.C.E A/L 2019: 3A Passes (Physical Science Stream)

- G.C.E O/L 2016: 8 A Passes and 1 B Pass

## Certifications

- Algorithmic Toolbox - UC San Diego (Coursera) ([cert](#))
- Pandas Certification - Kaggle ([cert](#))

## Experience

### WSO2

2023 Dec - 2024 June

#### Software Engineering Intern

- Carried out a research project as a part of the IAM team.

### Teaching Assistant

2024 July - 2024 Nov

#### CS2053 - Computer Architecture

- Conducted lab sessions for semester 3 students under supervision of Dr. Chathuranga Hettiarachchi

### Steam Pillar - Technical Team Lead

2022 Mar - 2023 Mar

#### Sasnaka Sansada Foundation

- Created and overseen number of technical projects such as a project planner, email automation.

### Vice Captain

2023 Dec - 2024 Dec

#### Mens Table Tennis Team - University of Moratuwa

### Treasurer

2023 Dec - 2024 Dec

#### Classical Music Society - University of Moratuwa

## Projects

### Research on a High-Speed Hardware Accelerator for CRYSTALS-Kyber Post-Quantum Cryptography

#### Algorithm (Ongoing)

- A final-year project on designing a hardware accelerator for efficient modular polynomial multiplication in CRYSTALS-Kyber Post-Quantum Cryptography.
- ([GitHub](#))
- Tech Stack:** VHDL, Xilinx Vivado, FPGA

### Secure E-voting system

2024 Oct - 2024 Nov

- A secure e-voting platform using RSA-based blind signatures to ensure confidentiality, integrity, authenticity, untraceability, and supporting vote pooling, signing, and validation.
- ([Research Paper](#))
- Tech Stack:** Python, Flask, Streamlit

### Real-time, Scalable and Extensible Object Filtering and Detection System

2023 Oct - 2023 Dec

- Developed a modular, lightweight ROS2-based C++ system for real-time object detection of basic shapes and colors, with runtime-extensible custom filters for optimized performance.
- ([Research Paper](#))
- Tech Stack:** C++, ROS 2, Linux