



Thenukan Pathmanathan



About me

Third-year Electronic and Telecommunication engineering student at University of Moratuwa, A person with a strong sense of creativity, Ability to adapt new environment, problem-solving abilities, and a strong desire to learn.

*Interest: machine learning
software development*



Education

2018 - present

UNIVERSITY OF MORATUWA

BSc. (Hons) in Electronics and Telecommunications

Engineering – Currently reading in Semester 5

CGPA: 3.55

2004 - 2017

KN/Kilinochchi MV

Advanced Level

3A s (Island Rank 98 | Z = 2.3040)



Relevant modules

- Fundamental of image processing and machine vision - A-
- Data structure algorithm - A+
- Modular software development A
- Calculus A
- Differential equation A+



Skills

1. Programming Languages
Python (NumPy stack, OpenCV) | Java SE | MATLAB | C++.
2. Web Development (Back end)
Django
3. Machine Learning & Neural Networks in Python
4. Microcontroller Programming
Arduino
5. Digital Design
Verilog



Languages

- Tamil (Native proficiency – Speaking and writing)
- English (working proficiency)



Address

Kilinochchi
Sri Lanka.



Phone

+94779842929



Email

pthenukan07@gmail.com



GitHub

[\(Thenukan Pathmanathan\)](#)



LinkedIn

[Thenukan Pathmanathan](#)

CAD&DESIGN SKILLS

SolidWorks

Altium Designer

NI Multisim

EXTRA CURRICULAR ACTIVITIES

- member in st'john ambulance
- Student Member of Institute of Engineers Sri Lanka
- Member in Tamil literary Association
- Tutor(physics)
- Member of media academy (university)

Referee 1

Chamira U. S. Edussooriya

Department of Electronic and
Telecommunication Engineering,
University of Moratuwa,
Sri Lanka.

T.P- 0112640051
+94711656562 ext. -3316

Email - chamira@uom.lk

Referee 2

Dr. M.A.U.K. Premaratne
Senior Lecturer Grade 2
Dept of Electronic and
Telecommunication Engineering,
University of Moratuwa ,
Sri Lanka. B.Sc.Eng (Moratuwa),
M.E.Sc. (Western Ontario), PhD
(Melbourne), LLB (OUSL)

T.P- +94719538433

Email - upeka@uom.lk



Projects

- **Berryminator (Ongoing).**
Autonomous robot that can recognize different varieties of berries (using vision sensor), determine whether they are ripe to harvest, and pick them if they are. (Currently doing this in CoppeliaSim and Python Remote API to interface with CoppeliaSim Robot Simulator).
Image Processing, Robotic Simulation, 3D Designing, Algorithm Building, Robot Navigation and localization, Python programming and Lua programming. Up to now we've done QR code identification with pyzbar and real-time berry detection with OpenCV and NumPy libraries using the image outputs of vision sensors.
- **Detecting COVID-19 with Chest X-Ray**
Train a ResNet-18 model to perform Image Classification create an image classification model that can predict Chest X-Ray scans that belong to one class.
- **Object Counting on a Convey Belt.** (a Classical Machine Vision Approach)
Used a Classical Machine Vision approach to track and count hexagonal nuts on a conveyor in a video file. Applied background subtraction, contour representation and template matching followed by object moments interpretation as the detection, modeling and tracking methods respectively. Contribution: Implemented the algorithms using OpenCV and NumPy libraries with Python 3.
- **Multitasking Robot group project on webots.**
2021 - line Following Task, Curved Following Task, Ramp Task, Color Detection Task, Pillar Detection Task, Maze Solving Task and Synchronous Gate Detection and Passing Task.
- **Analog Self-Balancing Robot group project.**
2020 - a small bot that stands erect on its own two wheels using only analog component.
- **line-following and wall-following robot (group project).**
2019- It is designed to move automatically and follow the black line also it is designed to move along a wall without hitting it using ATmega 328.
- **Web development in the backend for t-shirt sales.**
2021- Created a backend with admin using Django REST framework | SQLite.



Honors, Awards & Certificates

- *Certificated for completing Machine Learning offered by Coursera.*
- *Certificated for completing Neural Networks and Deep Learning offered by Coursera.*
- *LinkedIn badge for successful completion and involvement in RaspberryPI JAM series.*
- *MoraXtreme 5.0 Coding competition (42 out of 150+ teams)*
- *CODECHEF Coding competition (70 out of 1200+ teams)*
- *Mahapola Higher Education Merit Scholarship granted by the Government of Sri Lanka.*
- *Dialog Merit Scholar Award granted by the Dialog Axiata PLC (Z=2.3040 in nationwide GCE A/L).*