

# **SUPUN GAMLATH**

Moratuwa, Sri Lanka | supung.20@cse.mrt.ac.lk Portfolio - https://supungamlath.github.io

## **OBJECTIVE**

**Motivated Computer Science** Engineering undergraduate specializing in Integrated Computer Engineering, focusing on robotics and embedded systems. Excited to work on real-world projects and enhance my skills. Ready to collaborate with a dedicated team to drive excellence and propel technology forward.

## **SKILLS**

C++11 Programming

- std::vector, map, sort Python 3 Programming
- tkinter, matplotlib, pandas **Robot Programming**
- ROS2 nav2, ros2 control **Robot Simulation** 
  - Webots, Gazebo

Machine Learning

- Scikit-learn, XGBoost **Image Processing**
- OpenCV, Pillow CAD Design
- Eagle, Fusion 360 Interface Design
  - React, React Native, HTML5









# PROJECT EXPERIENCE

MORE PROJECTS ON PORTFOLIO

## MAZE SOLVING ROBOT

Simulated on GCTronic E-Puck robot in Webots environment. Developed wall detection algorithm using machine learning. Used Python OpenCV library for object detection and segmentation. Implemented A\* search, PID control and sensor fusion algorithms. Awarded 1st Place Winner at IESL RoboGames 2022.

#### 3D ARENA MAPPING ROBOT

Robot with Kobuki base, Raspberry Pi 3 and Kinect Camera. Programmed with ROS2 Foxy utilizing nav2, kobuki\_ros\_interfaces and kinect\_ros2 packages.

## **EDUCATION**

#### UNIVERSITY OF MORATUWA - SRI LANKA

**B.Sc. Honors (UG) in Engineering, SGPA – 3.72 (Out of 4.00)** Computer Science Engineering | Integrated Computer Engineering

## THE OPEN UNIVERSITY OF SRI LANKA

Certificate in Computer Aided Drafting and Modelling

#### **KAGGLE COURSES**

Intro To Machine Learning | Intermediate Machine Learning

#### **COURSERA COURSES**

Basic Robotic Behaviors and Odometry - University of Colorado Neural Networks and Deep Learning - DeepLearning.AI

## LEADERSHIP EXPERIENCE

## TEAM MORA - ABU ROBOCON 2023

- Leader of Team Mora, robotics team from University of Moratuwa.
- Represented Sri Lanka at ABU RoboCon 2023 in Cambodia.
- Coordinated team sprints, stakeholders, financial management.
- Responsible for designing and programming the "Rabbit Robot".
- Robot had ESP32 microcontrollers and RPi 3 running ROS2 Foxy.
- Used Kinect Camera with OpenCV for object recognition.