



# MADHUSUDAN PATIL

## Software Engineer

## PERSONAL INFO

I am a software engineer from Nashik, India. I am interested in machine learning and its applications in the medical field. I am also interested in the hardware acceleration aspect of machine learning with GPUs, such as with technologies like Cuda, and in the low-level architecture of microprocessors and the inner workings of operating systems.

## EDUCATION

### MVP's KBTCOE, Nashik

Bachelor's of Engineering in IT  
2017 - 2020  
Aggregate:- 9.10

### RSM Polytechnic, Nashik

Diploma in IT  
2020 - 2023  
Aggregate:- 92.63

## SKILLS

- **C/C++:-** QT, GTKMM, GTK+, Opengl, Pytorch, Cuda.
- **Python:-** Pytorch, Tensorflow, PyQT, PyGame, Django, Flask.
- **Java:-** Android, Spring Boot., JavaFx.
- **C#:-** .Net, Unity, Xamarin.
- **Javascript:-** Nodejs, ExpressJs, ReactJs.
- **Php:-** Laravel.
- **X86 Assembly**

## CERTIFICATIONS

- [Google Cloud Facilitator](#)
- [Beginner's Guide to Linux Kernel Development](#)

## PROFESSIONAL EXPERIENCE

### Triamp Motors, Nashik —Software Engineer

September 2021 - September 2022

- Worked as a software engineer on their smart display for Electrical vehicles as well as worked on the electronic integrations with sensors and the vehicle.

## PROJECTS

### Localization and classification of fractures in the cervical spinal cord

This project performs the localization and classification of fractures in the top eight vertebrae in the spinal cord. This is done with a three-model structure involving vertebrae detection, fractured vertebrae classification, and localization of the fracture.

- (Selected for Grant Evaluation by Science and Engineering Research Board SERB)

### Lane centering and object detection for self-driving

This project performs two aspects of a self-driving system involving lane centering and object detection. This is done with two models working together, with a NN model controlling the steering wheel angle and torque and the other doing object detection for cars, pedestrians, etc.

### Driving Monitoring Application

This project helps with driver monitoring. It uses the smartphone's front camera to detect eyes and faces and make judgments for lack of attention.

### Lain Operating System

This is an extremely small "OS" I have started working on to learn how an Operating system works under the hood.

### Video Conference App with WebRTC

A video conferencing web app with WebRTC. Made with Nodejs, ExpressJs.