



## Atharva Mandavkar

Roll No.: 1032211830

Bachelor of Technology

Electronics and Communication Engineering

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GitHub Profile

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## EDUCATION

### **. Dr Vishwanath Karad MIT World Peace University, Pune**

*Bachelor of Technology in Electronics and Communication Engineering (B.Tech)*

*August 2019 – March 2025*

*CGPA: 8.85/10*

### **. Namo Rims Jr. College, Pune**

*Higher Secondary Education (Grade 12th)*

*August 2019 - July 2021*

*Percentage: 91.50% out of 100%*

### **. Sacred Heart Convent High School, Ratnagiri**

*Secondary Education (Grade 10th)*

*Percentage: 93.20% out of 100%*

## PROJECTS

### **. Real-Time Crime Detection, Crowd Management & Work Monitoring using AI-ML** *September 2023 – March 2024*

*Team EnvisionAI, Smart India Hackathon 2023*

- Tools & technologies used: Python, HuggingFace, Pytorch, Gradio
- Creating an App for Indian Railway Authorities to Prevent Crime, Crowd Congestion, and Monitor Work on Railway Stations.
- Working on Machine Learning Architecture for Crime Detection, Crowd Management & Work Monitoring.
- Implementing Hugging Face **Vision Transformer (ViViT)**, **3D Convolutional Neural Networks (3DCNNs)** and **YOLO**.

### **. E-Waste Segregation with OpenCV using YOLOv8**

*March 2023 - July*

*2023 A ML model trained for multi-class classification of E-waste using YOLOv8*

- Tools & technologies used: Python, OpenCV, YOLOv8, Jupyter, Raspberry PI
- Trained multiple **YOLOv8** models (nano, small, medium, large, and x-large) using a custom dataset for **Multi-Class Classification**.
- Analyzed the accuracy and space complexity of these models on a Raspberry Pi Model 4b with Pi Camera.

### **. DataLogger using Embedded Devices and Modbus**

*February 2024 - June*

*2024 This Project is proposed by Atlas Copco to develop a system for logging Data*

- Tools & technologies used: Python, MySQL, PythonAnywhere, Postman MQTT, Raspberry Pi, STM32
- Our team is developing a Datalogger system which will be installed on Mining Trucks to obtain relevant Data.
- Interfacing the Modbus using TCP/IP, MQTT protocols to configure the addresses of the Modbus and then acquiring relevant data from the connected Sensors and Visualization of Data.

### **. Smart Crime Detection using Existing CCTV Infrastructure**

*September 2023 – March 2024*

*Team EnvisionAI, eYantra Innovation Challenge 2023-24*

- Tools & Technologies: Python, ViViT, PyTorch, Twilio, DynamoDB, MongoDB, Android Studio.
- Creating a Centralized Database for the Authorities to Prevent Crime, an Alert System, and a Web and an Android App.

## TECHNICAL SKILLS AND INTERESTS

**Languages:** Python, MATLAB, C, C++, HTML, CSS, R

**Developer Tools:** Jupyter, Tableau, VScode, Git, GitHub, PythonAnywhere

**Docker, Frameworks:** Pytorch, Tensorflow, OpenCV,

**YOLO, Cloud/Databases:** MySQL, MongoDB, Excel, AWS

DynamoDB.

**Soft Skills:** Problem-Solving, Inter-personal Communication, Teamwork, Critical Thinking.

**Areas of Interest:** Machine Learning, Computer Vision, Natural Language Processing.

## **WORKSHOPS/COURSES COMPLETED**

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- . **Fundamentals of Deep Learning by Nvidia** *Nov 2023*  
Key Skills: **Deep Learning, DLI**
- . **National Academic Immersion Program in Robotics & IoT.** NITTTR, Bhopal *10-22 July 2023*  
Key Skills: **PLC, MindSphere (IOT), Robot Studio, Electric Drives**
- . **Masterclass on API Development using Node.js** *January 2024*  
Key Skills: **Application Programming Interface API, API Development**
- . **Scientific Use of Machine Learning on Low Power Devices, ICTP** *17-21 April 2023*  
Key Skills: **TinyML, Developing TinyML and its Application**
- . **Brainy Pi Workshop at IoTIoT.in** *4 November 2023*  
Key Skills: **Implementing interfaces on BrainyPi**
- . **AWS Academy Graduate- AWS Academy Cloud Foundations** *February 2024*  
Key Skills: **Amazon Web Services (AWS)**

## **ACHIEVEMENTS**

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- . **Smart India Hackathon 2023 (University Internal)** Selected for National Level in SIH 2023 *October 2023*
- . **eYantra Innovation Challenge 2023-24 (National Finals)** Won the Best Implementation Award *April 2024*  
in National Finals.
- . **MIT World Peace University HackMITWPU Workathon** Won the Finals in the Workathon *March 2024*  
Competition under HackMITWPU organized by MIT World Peace University