# P. MUHAMMADHU NAZAR ALI

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#### **OBJECTIVE**

Dedicated and proactive B. Tech Computer Science student with a strong passion for problem-solving and research. As an engineering student, I focus on delivering useful outcomes through my projects. Known for managing tasks efficiently and facing challenges with confidence.

### **EDUCATION**

Kalasalingam Academy of Research and Education Expected 2026
B.Tech/CSE-AIML, 8.97 CGPA
Sri Parasakthi Vidyalaya (CBSE), Courtallam 2019 - 2020
10th, 86.52%
Esaki Vidyaashram (CBSE), Tenkasi 2021 - 2022

## **SKILLS**

12 th, 72.34%

- Python Java SQL Leadership Machine Learning Deep Learning Git and Github HTML CSS JS Bootstrap
- Django

#### **EXPERIENCE**

#### VINSUP INFOTECH PRIVATE LIMITED

Tenkasi, Ayikudy

**FULL STACK DEVELOPER** 

May 24 - June 24

- Gained hands-on industry exposure by working as a Full Stack Developer on a Medical Sales and Stock Maintenance Website during an off-campus internship.
- Learned the process of gathering client requirements and how to effectively communicate them to the software development team, and creating UML diagrams for project planning.
- Developed and completed the project within 20 days using HTML, CSS, JavaScript, Bootstrap, and Django for backend functionality, delivering the final product to the client.

#### IEEE ROBOTICS AND AUTOMATION SOCIETY

DEC 24 - Present

#### TEAM SENSORS AND ACTUATORS

• Selected for the IEEE RAS Sensors and Actuators Team, where I learned about different sensors, how they work, and how to use them in IoT and AI-integrated projects.

### **PROJECTS**

We developed an automated navigation system for visually challenged people, integrating smart shoes and spectacles to detect obstacles in all directions. The system uses four ultrasonic sensors, each paired with a buzzer and vibration sensor, providing distinct sounds and vibrations to guide the user. Additionally, a GPS module tracks the user's location, allowing relatives to monitor their movements. (GITHUB LINK)

Developed a "Smart door lock system" using face recognition with ESP32-CAM and FaceNet. The system analyzes faces via a local server and unlocks or locks based on the model's response. Contributed to fine-tuning the FaceNet model, developing the local server, and designing circuit connections. (GITHUB LINK)

Developed a real-time driver drowsiness detection system using AI and IoT integration with MediaPipe for eye blink detection. Processed video feed to detect drowsiness and sent alerts to an Arduino Nano, which triggered a relay to reduce vehicle speed. Optimized for edge devices, ensuring efficient execution on CPUs and embedded systems for real-time accident prevention. (GITHUB LINK)

## **ACHIEVEMENTS**

- Published a design patent titled "Navigation System for Visually Challenged" under the Intellectual Property of India, Government of India.
- Published a research paper on "Improving Security with Smart Door Lock Using ESP32" in IEEE xplore.
- Secured first place in the "Project Expo" conducted by Paavai College of Engineering.