# **Eizad Hamdan**

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## **EDUCATION**

Aligarh Muslim University Aligarh, India

Bachelor of Technology in Computer Engineering

2022-2026

o **CGPA**: 9.129

Related Coursework: Data Structures and Algorithms, Object-Oriented Programming,

Software Engineering, Design and Analysis of Algorithms

Saiyyid Hamid Sr. Sec. School, AMU Aligarh, India

Senior Secondary School Examination (Result: 86.4%) 2021

Our Lady of Fatima Sr. Sec. School

Aligarh, India

Secondary School Examination (Result : 93.8%) 2019

## **SKILLS**

**Programming:** C, C++, Java, Python, JavaScript, SQL, HTML, CSS, SASS, Django, Flask, React.js

Tools: IntelliJ, PyCharm, Eclipse, Jupyter Notebook, Google Colab, Git, Docker

Other Skills: Skilled in operating Raspberry Pi, Jetson Nano, and Arduino systems; adept at integrating Intel

RealSense depth camera and LiDAR sensor for various projects.

### **PROJECTS**

### **Kernel Metrics**

• Developed a machine learning model for wheat variety classification and geometric analysis, accurately measuring properties of kernels across three varieties. Employed Principal Component Analysis for feature extraction, enhancing the model's efficiency and accuracy.

## **Lane Detection System**

Developed a Lane Detection System for autonomous vehicles using Python and OpenCV. Implemented computer
vision algorithms for real-time identification and tracking of lane markings, incorporating advanced image processing
techniques for enhanced visibility and robust performance, contributing to the evolution of autonomous vehicle
technology.

### **Vehicle Recognition**

• Implemented a Python computer vision program using OpenCV and machine learning for precise vehicle recognition. Applied advanced image processing techniques to detect and classify vehicles, contributing to improved traffic management and surveillance systems.

#### Depthsense

• Utilizing Intel RealSense technology for precise object distance measurement, recognition, and mask generation. RealSense depth sensing ensures accurate distance calculations, while object detection algorithms identify objects within the camera's view. Integration with OpenCV enhances image processing capabilities for versatile applications.

### **Handwritten Digits Classification**

Utilized advanced neural network architectures to achieve state-of-the-art accuracy in handwritten digit recognition
using MNIST dataset. Project involved rigorous data preprocessing, feature engineering, and hyperparameter tuning
for optimal results. Demonstrated proficiency in machine learning implementation, delivering impactful solutions.

#### **Air Canvas**

Developed a real-time air canvas application using Python and OpenCV. Leveraged computer vision techniques to
detect and track a colored object, empowering users to draw directly on a virtual canvas displayed on-screen. Used
many color detection algorithms, integrating intuitive user interactions and ensuring smooth drawing features.

#### **EXTRA CURRICULAR**

 Member of Computer Team of MTS-Autonomous Underwater Vehicle ZHCET Club Developing software for Autonomous Underwater Vehicles (AUVs) and contributing to the club's website development. 2023-Current

Member of AMU Machine Learning Club

2022-Current