# Kulsoom Masood

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## **FDUCATION**

#### ALIGARH MUSLIM UNIVERSITY

B.TECH (COMPUTER ENGINEERING) Dec 2021 - Jun 2025 | Aligarh, India CGPA: 8.538 / 10

#### ALIGARH MUSLIM UNIVERSITY

SENIOR SECONDARY SCHOOL (+2), CLASS 12TH

2020 – 2021 | Aligarh, India Percentage: 94/100

## COURSEWORK

Operating Systems
Database Management System
Computer Networks
Data Structures and Algorithm
Object Oriented Programming
Information Security
Machine Learning
Software Engineering

## SKILLS

## **PROGRAMMING**

Languages:

- Python
- ( /( ++
- HTML/CSS
- Java
- Latex
- SQL

#### **TECHNICAL**

- Computer Vision
- Deep Learning
- Machine Learning
- Data Structure and Algorithms
- Object Oriented Programming

#### IOT

- Arduino
- RaspberryPi
- Jetson Nano
- Node Mcu

#### **SOFT SKILLS**

- Team leadership
- Quick learning
- Adaptability
- Problem-solving
- Effective time management

## **EXPERIENCE**

## **IIIT HYDERABAD** | SUMMER RESEARCH INTERN

Jun 2024 - Aug 2024 | Hyderabad, India

• Contributed to a project on using large language models for captioning traffic anomalies to enhance autonomous visual perception and driver safety at the Center of Visual Information Technology Lab under Prof. C.V. Jawahar.

## **CMERI-CSIR** | Summer Research Intern

Jun 2023 - Aug 2023 | West-Bengal, India

 Worked on detecting underwater docking station entrances through color extraction and size estimation, and developed a novel method for size estimation without reference objects.

## **PROJECTS**

## **RAKSHA: YOUR AI POWERED GUARDIAN**

Skills:AI, Computer Vision, Wearables, Mobile App, Encryption.

 Built an Al-powered safety system using wearables and a mobile app for real-time threat detection.

#### TRAFFIC-TECH: SMART SURVEILLANCE SYSTEM

Skills: Python, Flask, OpenCV, Jetson Nano, Deep Learning, Machine Learning

• Developed a Traffic Surveillance System to alert authorities of over-speeding vehicles through nameplate reading, color detection, and model recognition.

## **COMPANY KNOWLEDGE CHATBOT**

Skills: Generative AI, RAG, Google Docs API, BigQuery, Vector Search, LLMs

• Built an Al-powered chatbot using RAG to answer queries from company documents by combining BigQuery, vector search, and LLMs for accurate, context-aware responses.

#### DYNAMIC DATA MANAGEMENT SYSTEM

Skills: Node.js, React, HTML, CSS, JavaScript, Data Visualization, Java, Git, SQL

• Built a scalable web app managing 2M+ records with dynamic tables (pagination, search, filters, CRUD) and an interactive dashboard with pie charts, ensuring optimized, modular, and performant code.

# ACHIEVEMENTS AND WORKSHOPS

- Batch Topper in first semester (9.7 CPI).
- Placement Coordinator at ZHCET(AMU), Member of IEEE Club and Marine Technology Society.
- 2024 8th Summer School on Artificial Intelligence, IIIT-H: Attended a research training event covering AI fundamentals, machine learning, and computer vision, with lectures from leading academics and industry experts.

# **PUBLICATIONS**

[1] D. Singh, K. Masood, N. Jamshed, Y. Farooq, Y. Hasan, and H. Ahmad. Design and implementation of autonomous underwater vehicles' software stack. 2023 International Conference on Power, Instrumentation, Energy and Control (PIECON), pages 1–5, 2023.