Syed Mubeen Ali

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Professional Summary

I am an Electronics and Communication Engineering student with a deep passion for technology and innovation, especially in the fields of computer vision and AI. Over the years, I have built a strong foundation in programming with Python, C, and C++, and gained hands-on experience designing and optimizing solutions in robotics, machine learning, and real-time systems.
What truly excites me is the challenge of solving complex problems using advanced tools like OpenCV and TensorFlow, transforming ideas into impactful, real-world applications. Whether it's creating a face recognition system or developing a virtual drawing tool like Air Canvas, I take pride in combining creativity with technical expertise to deliver meaningful results.
Collaboration is at the heart of my work. I thrive in dynamic environments where I can learn from others, share my insights, and push the boundaries of what's possible. I'm constantly looking for opportunities to grow, adapt, and contribute to projects that make a difference.

Education

St.Joseph's High School,SSC (9.5/10) 2018 – 2019

Sri Chaitanaya Jr.Kalasala, MPC (966/1000) 2019-2021

Muffakham Jah College Of Engineering And Technology, BE in ECE 2021 – 2025(expected)

Projects

Gesture-to-Speech Translation System

- Developed a real-time gesture-to-speech translation system to assist the deaf and mute community in communication.
- Designed gloves with flex and IMU sensors for gesture capture, utilizing ESP32 for data collection and server communication via WebSockets.
- Developed an Android app with Java and XML for displaying results and converting text to speech using Android TTS.
- Tools Used: ESP32, Flex Sensors, IMU Sensors, Python (ML Model), Java, XML, Android TTS.

Face Recognition and Detection System

- Built a face recognition tool using Python and OpenCV, applying concepts in image processing and machine learning. Added attendance Feature to it.
- Tools Used: Python, Opencv, Dlib, Face recognition library , Firebase

Air Canvas Project

- Created a virtual drawing tool using computer vision, allowing users to draw in mid-air via a camera interface.
- Tools Used: Python, Opencv, Numpy, Mediapipe

Crop Prediction System

- Created a machine learning model to recommend crops based on soil, weather, and climate data in a 24-hour hackathon.
- Tools Used: Python, Pandas, NumPy, scikit-learn, Matplotlib

Food Serving Bot

- Developed a robotic assistant to deliver food, utilizing programming skills in Arduino and sensor integration.
- Tools Used: embedded C, Arduino Uno, Bluetooth Sensor, L298N Driver, Arduino IDE

Skills

Languages: Python , C , C++ , Matlab , SQL

Technologies: Embedded C,Arduino IDE Opencv, Tensorflow,Streamlit, Pandas, NumPy, scikit-learn

Development Tools: Git, GitHub, VS Code, Google Colab , Jupyter Notebook

Design Tools: Eagle, SolidWorks

Academic and Extracurricular Achievements

Hackathon Participant – Agrotech Field
- Successfully participated in a 24-hour hackathon focused on agricultural technology, showcasing skills in rapid problem-solving and interdisciplinary collaboration.

TSIG - Tech Lead Jul 2023 – Present
- Spearheaded technical workshops and events, focusing on programming, robotics, and embedded systems, enabling participants to gain hands-on experience in innovative technologies.
- Strengthened proficiency in tools like SolidWorks and programming languages such as C and C++, enhancing problem-solving and design capabilities.
- Played a key role in managing teams and mentoring peers, fostering collaboration and leadership within the organization.

Hackathon Participant – Agrotech Field
- Successfully participated in a 24-hour hackathon focused on agricultural technology, showcasing skills in rapid problem-solving and interdisciplinary collaboration.

Event Management and Volunteering
- Organized and volunteered in key college inspections, including NACC Inspection, ACES Inspection, and OU Inspection, contributing to the smooth execution of these evaluations.
- Actively engaged in organizing events through TSIG, enhancing teamwork and communication skills while promoting technical and personal development among participants.

Workshops Conducted and Participated
- Conducted workshops on face recognition and detection, air canvas, and other innovative projects, sharing knowledge and inspiring creativity among students.
- Participated in training sessions to deepen expertise in advanced topics such as generative AI, embedded systems, and robotics.

Technical Leadership
- Guided teams in coding competitions and robotics demonstrations, developing a culture of innovation and problem-solving in technical events.

Publications

- A Critical Review and System Design for the Discrepancies in PLA Recycling for 3D Printing (Under Review in the International Journal for Multidisciplinary Research (IJFMR) E-ISSN: 2582-2160, Paper ID: 30920, Volume 6 Issue 6)
- RoboFetch – An Automated Item Retrieval System (Under International Journal of Engineering Research in Electronics and Communication Engineering(IJERECE) Vol 12, Issue 01)
- Securing IoT Networks: A Blockchain-Driven Approach to Decentralized Communication (Under International Journal of Innovative Research in Electrical, Electronics, Instrumentation and Control Engineering (IJIREEICE) DOI: 10.17148/IJIREEICE.2025.13205 Vol 13 Issue 2)