

# Engr. Muhammad Abul Hassan

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## Education

Sept. 2020 – July 2024	Institute of Space Technology, Islamabad
• <b>CGPA:</b> 3.30, Grade A	
July. 2017 – June 2019	Punjab Group of Colleges, Gujranwala
• <b>Grade:</b> A	

## Experience

July. 2023 – Sept. 2023	NCP(AI-TeC), Islamabad
<ul style="list-style-type: none"><li>• Internship was related to Artificial Intelligence.</li><li>• Developed and implemented AI models using YOLO, TensorFlow, Keras, and VertexAi.</li><li>• Utilized data science libraries such as Pandas, Numpy, and Matplotlib for data manipulation, numerical operations, and visualization.</li><li>• Gained hands-on experience in Machine Learning and Deep Learning techniques.</li></ul>	

## Projects

Sept. 2023 – July 2024	AI-Based Aatish Detection Using CCTV
<ul style="list-style-type: none"><li>• Developed AI-based Aatish Detection system to detect specialized classes including fire, smoke, spark, and flame; achieved 96.32 accuracy using YOLOv8.</li><li>• Tested the system with custom datasets, internet images, and real-time images.</li><li>• Designed a prototype for the Final Year Project to detect fire-related anomalies through CCTV cameras.</li><li>• Trained a model with four classes: fire, smoke, flame, and spark, using custom-labeled datasets via Roboflow.</li><li>• Created a frontend for model evaluation using Python's Streamlit library.</li><li>• Implemented Python's SMTP library to send response emails to authorized persons.</li></ul>	
July 2024 – July 2024	AI-Based Sketch Generator
<ul style="list-style-type: none"><li>• Created a tool that turns simple sketches into realistic images using AI.</li><li>• Designed and trained a deep learning model to interpret sketches and generate high-quality images.</li><li>• Developed a user-friendly interface for ease of use and integration with various applications.</li></ul>	
July. 2023 – Sept. 2023	Smart Attendance System using Face Recognition
<ul style="list-style-type: none"><li>• Built an attendance system that uses facial recognition to mark attendance automatically.</li><li>• Implemented deep learning techniques to improve face detection accuracy and speed.</li><li>• Integrated the system with existing attendance management software.</li></ul>	
Dec. 2023 – Jan. 2024	Blog Generator using OpenAI
<ul style="list-style-type: none"><li>• Created a blog generator tool that utilizes the OpenAI API to generate blog content based on user input.</li><li>• Developed a full-screen, appealing interface using the Tkinter library.</li></ul>	

- Implemented features to customize and edit the generated content.

Aug. 2023 – Sept. 2023

E-Commerce Website for  
Local Business

- Designed and developed an e-commerce website for a local business using WordPress and WooCommerce.
- Implemented payment gateway integration, product management, and customer support features.
- Enhanced the website's SEO to increase online visibility and sales.

Feb 2024 – March. 2024

Custom WooCommerce Store  
for Digital Downloads  
Products

- Created a custom WooCommerce store specifically for digital downloads products.
- Implemented secure payment processing and instant digital product delivery.
- Developed a user-friendly interface to enhance the customer experience.

## Skills

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- **Programming Languages:** Java, C, C++, Python
- **Web Development:** HTML, CSS, JavaScript, WordPress, WooCommerce
- **Machine Learning & AI:** TensorFlow, Keras, PyTorch, scikit-learn
- **Data Science:** Pandas, NumPy, Matplotlib
- **Tools & Technologies:** Git, Google Colab, VS code,
- **Cloud Platform :** AWS, Azure, Vercel, Google cloud.
- **Soft Skills:** Team Collaboration, Problem Solving, Effective Communication

## Certifications

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March 2024

ML certificate

Sept. 2023

Data Science certificate