# Rohan R

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## Professional Summary

AI & Data Science student with hands-on experience in OCR, computer vision, machine learning, and cybersecurity. Passionate about leveraging AI technologies to solve real-world problems with a strong foundation in Python, OpenCV, and enterprise-level data processing.

## Education

**Global Academy of Technology**                                              *Bangalore, India*
Bachelor of Engineering in Artificial Intelligence & Data Science                *Expected 2026*
GPA: 9.48/10

## Projects

**Automatic Image Enhancer** — *OpenCV, Python, NumPy, Streamlit — GitHub*               2025
- Automated image enhancement tool using CLAHE (Contrast Limited Adaptive Histogram Equalization) to improve brightness and contrast dynamically.
- Enhanced visual clarity across multiple image formats and resolutions using OpenCV and NumPy.
- Developed an interactive Streamlit web interface enabling real-time image upload, enhancement, and side-by-side visualization.

**Sign Language Translation System** — *Python, OpenCV, Random Forest — GitHub*               2024
- Real-time ASL to English text conversion using OpenCV for gesture detection and feature extraction.
- Achieved 79.3% accuracy in gesture classification using Random Forest algorithm with 500+ test samples.

**AI-Powered Document Search & Question Answering (RAG System)** — *Python, Streamlit, FAISS, Sentence-Transformers, Gemini API — GitHub*               2025
- Developed an intelligent document search and question-answering system using Retrieval-Augmented Generation (RAG) with Google Gemini.
- Combined FAISS-based vector similarity search and Sentence-Transformers embeddings to enable context-aware knowledge retrieval from uploaded documents and URLs.
- Implemented a secure Streamlit interface supporting local embedding generation, semantic query processing, and real-time, explainable AI responses.

## Technical Skills

**Languages:** Python, SQL
**ML & AI:** PaddleOCR, Scikit-learn, Computer Vision, TensorFlow, Keras, NLP, Deep Learning, NumPy, Pandas
**Tools:** Docker, Git, Jupyter, Linux, Streamlit, Tableau, Power BI
**Web:** HTML, CSS
**Core CS Concepts:** Object-Oriented Programming (OOP), Data Structures and Algorithms (DSA), Computer Networks, DBMS

## Certifications

**Data Science:** Python for Data Science (NPTEL), Data Science for Engineers (NPTEL)
**Infosys Springboard:** Python Foundation, Front-End Web Developer, Natural Language Processing and Web Technology
**Cybersecurity:** Cybersecurity and Privacy (NPTEL)

## Activities

**Participant:** HackaLeague 1.0 at Global Academy of Technology
**Interests:** Technological Innovation, Cybersecurity, Video Games, Anime, Music