

# Midhun Prahash SR

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## Summary

I like training and partnering with machines to solve the majorly faced challenges, which in turn revolutionize industries, enhance efficiency, and drive innovation.

## Education

**B.Tech** - Artificial Intelligence & Data Science,  
St.Joseph's Institute of Technology

*Expected - 2027*  
*SGPA:8.4*

**High School** ,  
Excel Central School

*HSC : 89 %*

## Work Experience

### Project Assistant

*Excelsa 3.0 Alpha (Interactive Humanoid Robot )*

*December 2024-January 2025*

Ai & Robotics Lab, Excel Group of Schools

- Designed and demonstrated a humanoid robot integrated with the ChatGPT API, enabling real-time human interaction and dynamic query resolution using advanced NLP techniques.

## Projects(Working on/Finished)

### Predictive CrimeSpot analysis & Deployment Suggestion Application- (TIME SERIES FORECASTING) | [Git Repo](#)

- Built a crime trend prediction system using ARIMA time-series forecasting to forecast incidents across Thoothukudi district.
- Developed a dynamic risk-level mapping app to guide police force deployment in real-time.
- Integrated Python, Pandas, and interactive dashboards to visualize trends, enabling proactive law enforcement decisions.

### StudentAi - (RAG & LLM) | [Git Repo](#)

- Developed an AI-powered educational assistant using Retrieval-Augmented Generation (RAG) to extract key concepts from school textbooks and generate 'Why? What? How?' explanations for easier student learning.
- Implemented FAISS vector database for efficient document chunk storage and similarity search, enabling fast and accurate content retrieval.
- Integrated LangChain framework to orchestrate the RAG pipeline and used OpenAI GPT APIs for generating natural language explanations, improving student engagement and comprehension.
- Built the web interface using Streamlit, delivering an interactive app that personalizes answers based on student queries.

### Ai Integrated Smart Mirror- (COMPUTER VISION) | [Git Repo](#)

- Designed and developed an AI-powered smart mirror using YOLO v8 object detection to track real-time hair density.
- Leveraged computer vision techniques to provide monthly hair density insights, enhancing user engagement in wellness.
- Applied Python, OpenCV, and YOLO v8, achieving high accuracy in real-time detection with optimized performance.

### Fliptkart-Product Review Visualizer- (NLP & SENTIMENT ANALYSIS) | [Git Repo](#)

- Scrapes the Flipkart's Product review and summarizes the overall customer impression on the product using NLP and provide a visualization of the impressions - (*Finished*)

## Skills

**Programming Languages:** Python, Java, SQL

**Data Science:** Time Series Forecasting, Data Visualization, Machine Learning,

**Technologies:** Computer Vision, Basics of LLMs, NLP, ARIMA, APIs, Langchain, RAG

**Tools:** Pandas, NumPy, Matplotlib, Scikit-learn

## Certifications

Data Science Methodology - <https://courses.cognitiveclass.ai/certificates/30720c84c6874a1783604880aefdb97a>

Python 101 for Data Science - <https://courses.cognitiveclass.ai/certificates/202c332650394476875dcd912b5815b0>

Data Science a-z - <https://ude.my/UC-bc67920a-0176-426d-862b-3d31a85efib>

SQL and Relational DataBase 101 - <https://courses.cognitiveclass.ai/certificates/93085e4a9b8b4fed872d8eb5a9f816d0>

Sql basics - <https://www.skillrack.com/faces/free/certificate.xhtml?t=cert&id=482693&key=FFY>

## Achievements

### Runner-Up (Top 2 out of 800+ Teams) at Thoothukudi District Police Hackathon(CYBER HACKATHON -2025)

- Won ₹25,000 for developing a data-driven crime prediction and police deployment solution.
- Recognized for innovative use of the ARIMA algorithm and real-time analytics to support proactive policing.