

# PIYUSH MAJI

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## EDUCATION

**Indian Institute of Technology Hyderabad**  
*M.Sc. in Physics / Telangana, India* CGPA: 7.5/10

Expected July 2027

**Hooghly Mohsin College**  
*B.Sc. in Physics / West Bengal, India* CGPA: 7.28/10

August 2024

## PROJECTS

**Voice Assistant with AI Integration (Friday)**  
*Self-Initiated Project*

- Developed a Python-based voice assistant capable of wake-word detection, speech recognition, and command execution using **SpeechRecognition** and **pyttsx3**.
- Implemented modular command routing for tasks such as web navigation, music playback, time/date queries, and AI-based conversational fallback.
- Integrated Python libraries for data preprocessing, time-series analysis, and structured data handling using **NumPy** and **Pandas**.
- Focused on clean project structure, multithreading for non-blocking speech output, and cross-platform compatibility (macOS/Windows). Source code available on **GitHub** with modular Python architecture.

**Computational Modeling of Particle Motion in Brownian Systems**

*Prof. Anupam Gupta, Department of Physics, IIT Hyderabad*

- Developed a Python workflow using **NumPy**, **Pandas** to visualize particle trajectories, and compute Mean Squared Displacement (MSD).
- Applied log-log regression on MSD data to classify motion types (diffusive, sub-diffusive, super-diffusive), enabling automated scientific interpretation.

## SKILLS

**Hard Skills:** Python, NumPy, Pandas, Data Analysis, C, LaTeX, MS Office

**Soft Skills:** Communication, Problem-Solving, Critical Thinking

## CERTIFICATIONS

- Completed NPTEL course "Introduction to Quantum Computing: Quantum Algorithms and Qiskit" (IITs & IISc initiative).

## LEADERSHIP & MANAGEMENT

**Coordinator (Inbound and Multimedia), International Relations Cell, IIT Hyderabad**  
*Guided exchange students (mainly from Japan and the US) by organizing orientation sessions, cultural events, and local school visits to promote cross-cultural understanding, and also arrange outbound tours*

**Member of Infocus (Photography Club, IIT Hyderabad)**

*Managed logistics and promotion for campus-wide photography contests and exhibitions.*