

PIYUSH MAJI

📞 +91 9330966439 📩 ph25mscst11019@iith.ac.in 💬 linkedin.com/in/piyush-maji
github.com/Piyush314159 🌐 piyush314159.github.io

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 with wake-word detection, speech recognition, and text-to-speech using **SpeechRecognition** and **pyttsx3**.
- Implemented modular command routing for web navigation, system queries, music playback, and AI-based conversational fallback.
- Applied multithreading, structured data handling, and reusable modules following clean software architecture principles using **NumPy** and **Pandas**.

Computational Modeling of Particle Motion in Brownian Systems

Prof. Anupam Gupta, Department of Physics, IIT Hyderabad

- Simulated stochastic particle trajectories and computed Mean Squared Displacement (MSD) using Python scientific libraries.
- Performed log-log regression on MSD to identify diffusive, sub-diffusive, and super-diffusive regimes.
- Interpreted results using concepts from stochastic processes and statistical mechanics.

Epidemic Modeling Using Compartmental Dynamics

Prof. Anupam Gupta, Department of Physics, IIT Hyderabad

- Developed SIR and SIRS epidemic models using systems of ordinary differential equations (ODEs).
- Analyzed transmission thresholds, infection peaks, and equilibrium stability through numerical simulations in Python.

SKILLS

Hard Skills: Python, NumPy, Pandas, Data Analysis, Machine Learning, C, LaTeX, Git, MS Office

Soft Skills: Communication, Problem-Solving, Critical Thinking

CERTIFICATIONS

- Machine Learning Fundamentals in Python – DataCamp

LEADERSHIP & MANAGEMENT

Coordinator (Inbound and Multimedia), International Relations Cell, IIT Hyderabad

Coordinated orientations, cultural programs, multimedia outreach, and outbound tours for international exchange students, primarily from Japan and the US.