

Nayab Gauhar

Summer Research Intern

India | [LinkedIn](#) | [GitHub](#)

B.Tech Computer Science student at Haldia Institute of Technology working across speech recognition, hydrology modeling, and real-time voice AI. Has shipped production code and placed in several national and campus competitions.

EXPERIENCE

Summer Research Intern (IAS/INSA/NASI Fellowship) Jun 2026 — Present
National Institute of Technology Puducherry *Karaikal, India*

Selected for the IAS/INSA/NASI Summer Research Fellowship Programme. Built a dysarthric Tamil speech recognition pipeline by fine-tuning Wav2Vec2-large-XLSR-53, with VAD-based segmentation and speaker-independent splitting via resemblyzer. Developed SWAT+ hydrology residual correction models using CatBoost, XGBoost, LightGBM, and LSTM/GRU architectures, with results that have publication potential.

Full Stack Developer Intern Jan 2026 — Mar 2026
Pripton Innovations *Remote*

Built and shipped a full client website, covering frontend design, backend APIs, and database setup. Met the deadline and the client's requirements.

Technical Team Member Mar 2025 — Present
Indian Society for Technical Education (HIT Student Chapter) *Haldia, West Bengal, India*

Manage technical infrastructure and content for chapter events and workshops, and maintain the ISTE website. Organized sponsorship outreach to about 100 companies for the National-Level Hackathon and Annual Convention 2026.

Founder Jul 2024 — Present
AuraForge

Building agentic AI systems for B2B clients using the predict → decide → act architecture — replacing manual workflows with autonomous pipelines

Developed Aria, a Vapi-based outbound voice agent with Hinglish tone, lead qualification logic, and CRM JSON integration

Delivering web development, AI automation, and branding solutions to clients across industries

EDUCATION

Haldia Institute of Technology Aug 2024 — Aug 2028
Bachelor of Technology - BTech in Computer Science

CGPA: 8.7/10

PROJECTS

Real-time voice AI pipeline for a real estate client, AI Voice Calling Agent

Shipped a production real-time voice AI pipeline with barge-in support. Reduced LLM token usage through prompt engineering and state compression, and built a pluggable provider architecture covering NVIDIA, Gemini, ElevenLabs, and Deepgram Aura.

Vision pipeline for a post-stroke AAC system, GAZE: Gaze-Guided Vision System for Assistive Communication

Built head detection, gaze estimation with Gaze-LLE, object detection, gaze-object fusion, and temporal filtering. Benchmarked 8 Gaze-LLE variants on CPU.

POSIX-compliant shell built from scratch (CodeCrafters challenge), POSIX Shell Interpreter

Built a POSIX-compliant shell including a REPL loop, command parsing, PATH resolution, and builtins.

CERTIFICATIONS

Krackhack 2.0, United Latino Students Association Jan 2025

SKILLS

computer vision · Robot Operating System (ROS) · Deep Learning · Data Modeling · Data Science · Data Analytics · Microsoft Power BI · Data Visualization · Machine Learning · Analytics · Management · Reasoning Skills · Attention to Detail · Problem Solving · Critical Thinking · Hindi · Streamlit · Python (Programming Language) · Video Editing · JavaScript · English · HTML · Cascading Style Sheets (CSS) · Editing · Science · Cricket · C++ · C · PyTorch · LLM pipelines · agentic workflows · prompt engineering · fine-tuning · RAG · Scikit-learn · FastAPI · Node.js · Express.js · React.js · Git · GitHub · Docker · Google Colab · ngrok · CI/CD · MongoDB · PostgreSQL