Nisarg Trivedi

Gandhinagar, Gujarat 382007 ✉ 202401129@dau.ac.in ☎ +91 7984212529 **in** [LinkedIn](#) ⊙ [GitHub](#)

Education

Dhirubhai Ambani University — Gandhinagar, Gujarat
B.Tech, Information and Communication Technology. — 2024-2028

Bellevue High School — Bellevue, Washington
GPA: 3.87 — June, 2024

Experience

Speech Research Lab, DAU — Gandhinagar, Gujarat
Research Assistant — May 2025 – Present

- Conducted data collection and preprocessing to build robust speech corpora for research and model training.
- Developing APIs enabling seamless integration of speech synthesis and classification modules
- Designed and trained speech language models for Dysarthria severity classification, improving clinical applicability of speech technology
- Researched and implemented GAN-based speech synthesis approaches, enhancing naturalness and intelligibility of generated speech.
- Working on audio LLMs for multilingual speech enhancement and low-resource language settings.

Projects

- **PRI-Prescription-Risk-Insight** - Built a Random Forest model to classify opioid prescriptions using Data by Washington State Government for High/Low Risk using demographic and prescription data, achieving 87% accuracy.

- **Talk2DAU** - Developed a Streamlit-based conversational AI chatbot for university resources using LangChain, Groq LLM, and FAISS, enabling PDF-based query answering with document chunking, vector search, and secure deployment on Streamlit Cloud.

Publications/Presentaions

1. Nisarg Trivedi, Ravindrakumar M. Purohit, Satyam Tiwari, and Hemant A. Patil, "CoSSHI: LLM-Powered Large-Scale Multitask Hinglish Dataset for Speech Forensics", Sarawak, Malaysia, 04-06 Aug. 2025. ***29th International Conference on Asian Language Processing (IALP).*** **2025.**

2. Siddharth Kumar, Nisarg Trivedi, Ravindrakumar M. Purohit, and Hemant A. Patil, "BAANI: A 296M-Parameter Neural Vocoder for End-to-End Punjabi Speech Synthesis," ***The 17th Asia-Pacific Signal and Information Processing Association Annual Summit and Conference (APSIPA ASC 2025).*** **2025.**

3. Presented a research poster on "Dyslexia Detection through Handwriting" at the **Conference on Technology for Disabled Persons, Indian Institute of Management Ahmedabad (IIM-A), 2025**

Technical Skills

Languages: Python3, C/C++, HTML/CSS, SQL
Frameworks & Libraries: PyTorch, Scikit-Learn, LangChain, NumPy, Pandas, Matplotlib, Streamlit
Tools: Git, GitHub, Linux, VS Code, Jupyter Notebook, Overleaf