# Sanyam Sharma

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## About

Final-year CS student (graduating May 2026) specializing in ML/DL, with hands-on research experience at IIT Hyderabad and IIT Mandi in deep learning, audio processing, and edge computing. Seeking full-time ML/AI engineering roles.

## Work Experience

**Indian Institute of Technology, Hyderabad** — Hyderabad, Telangana
Intern — Jan 2026 – Present
- Working at NetX Lab @ IIT Hyderabad

**Indian Institute of Technology, Mandi** — Mandi, Himachal Pradesh
Summer Intern — Jun 2025 – Jul 2025
- Extracted features from audio data using MFCC and HF pretrained models (wav2vec2.0, wav2vec2-phoneme)
- Implemented Conformer-based deep learning model in PyTorch for spoken language identification
- Achieved up to 79% accuracy on unseen language identification data
- Developed a PyQt6 desktop GUI and integrated pretained models for spoofed speech detection

**Indian Institute of Technology, Mandi** — Mandi, Himachal Pradesh
Research Intern — Jun 2024 – Jun 2024
- Set up real-time data pipeline using Telegraf and InfluxDB to collect and store sensor data from an ESP32 via MQTT.
- Deployed the system on a Raspberry Pi using Docker and Docker Compose for real-time data processing.

## Education

**Jawaharlal Nehru Government Engineering College** — Mandi, Himachal Pradesh
B.Tech - CSE (AI & ML) — 2022 – 2026
**Key Courses:** Data Structure and Algorithm, Machine Learning, Artificial Intelligence, Deep Learning, Cloud Computing, Generative AI

**Government Senior Secondary School, Kangoo** — Hamirpur, Himachal Pradesh
Senior Secondary (Non-Medical) — 2022

## Projects

**AI-Powered Assistive Vision for Blind People | Major Project** — Aug 2025 – Dec 2025
**Tech Stack:** gTTS, FaceNet, Gemini-API, pytesseract, RasberryPi
- Developed an AI-powered assistive vision smart cap for blind person using Raspberry Pi, camera, LiDAR and audio module
- Implemented OCR-based text recognition to read printed and convert it into real time audio output
- Integrated obstacle detection with audio-based navigation for safe mobility

**Extension for malicious QR code and URL detection | Capstone Project** — Jan 2025 – May 2025
**Tech Stack:** Python, Flask, Scikit-Learn, JavaScript
- Extracted and engineered features from large scale malicious and legitimate URL/QR dataset
- Built a stacked ensemble ML model (5 base + meta-classifier), achieving 91.3% accuracy
- Developed Chrome extension with Flask backend for model inference

**SpoofedSpeechGUI | Github**
**Tech Stack:** Python, PyQt6, PyTorch, Librosa
- Extracted features from the raw audio using Librosa
- Applied pre-trained AASIST and RawNet models for spoofed audio detection
- Developed a PyQt6 desktop GUI application and containerized with Docker

## Technical Skills

**Languages:** Python, C++, SQL, HTML, CSS
**Libraries:** PyTorch, Scikit-learn, Tensorflow (Keras), Numpy, Pandas, Fast-API, Flask
**Developer Tools:** Ollama, Docker, Postman, Git, GitHub, Linux

## Publications

- **HybridStack-MLP: Advanced Ensemble Learning for Malicious QR Code and URL Detection** — 2025
  AI-Powered Ensemble model achieved 91.3% accuracy in detecting malicious QR codes and phishing URLs

## Honors and Awards

- **State Level Smart Hackathon** — 2025
  Secured 1st position at SLSH Hackathon all over Himachal Pradesh
- **Smart India Hackathon** — 2025, 2024
  Secured 1st position twice in college-level SIH competition