HRIDYANSH SHARMA

Software Developer ● Bhilwara, Rajasthan

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Education

Indian Institute of Information Technology Vadodara - Diu Campus   2022 – Present
B.Tech in Computer Science and Engineering   *Diu, India*

Experience

Farnodes   May 2025 – July 2025
AI Intern   *Remote*

- Led development of **AgentXN**, an **offline agentic AI system** supporting multi-intent handling, memory-aware dialogue, and task automation via modular MCP servers.
- Integrated key modules like **Smart Calendar**, **To-Do Tracker**, **Reminders**, and **Local File Assistant** with structured JSON-based intent parsing and FastAPI backend.
- Engineered multi-tiered **memory system** (short-term, working, long-term) and custom **RAG pipeline** using LangChain + ChromaDB for personalized context retrieval.
- Fine-tuned **Gemma-1B** with prompt engineering for concurrent task threads; built responsive HTML/CSS/JS frontend for chat, memory, and agent module control.

Projects

AgentXN: Offline Personal Task Assistant | Python, FastAPI, LangChain, ChromaDB | ⌗ Code   **July 2025**

- Built an offline AI assistant powered by a fine-tuned 1B LLM, automating 9+ functional modules (Calendar, Tasks, Habits) with **92% accuracy** on multi-step commands.
- Integrated **LangChain**-based RAG pipeline and ChromaDB for contextual retrieval, reducing hallucination by **40%**.

Sentiant AI: Full-Stack Sentiment Intelligence Platform | React, FastAPI, Mistral, BERT | 🔗 Live Link   **May 2025**

- Built full-stack app with user auth, YouTube/Reddit API integration, and dynamic LLM-driven sentiment report generation.
- Used BERT for classification and Mistral for summarization, enabling contextual multi-source insights with natural language outputs.

Neural Text-to-Speech System | PyTorch, CUDA, Tacotron2, HiFi-GAN | 🔗 Live Link   **March 2025**

- Developed Tacotron2 + HiFi-GAN pipeline achieving **4.2/5 MOS**; deployed interactive demo on HuggingFace Spaces.
- Optimized inference with CUDA-based batching and augmentation, reducing latency by **45%**.

Document Layout Understanding System | Detectron2, OpenCV, spaCy | ⌗ Code   **October 2024**

- Achieved **82.6% mAP** on 15K+ image dataset using Mask R-CNN with aggressive data augmentation.
- Built OCR+NLP pipeline with Tesseract and spaCy, reaching **96.5% text accuracy** and **0.89 F1-score** for structural tagging.

Technical Skills

- **Programming Languages:** Python (NumPy, Pandas), JavaScript, C++, Java
- **Frameworks:** PyTorch, TensorFlow, Scikit-learn
- **Tools & Platforms:** Git, GitHub, VS Code, Google Colab, Jupyter, MySQL, MongoDB
- **Relevant Coursework:** Machine Learning, Artificial Intelligence, Data Structures, DBMS, OOPS, Computer Networks, Operating System, Software Engineering

Technical Achievements

- Earned **2nd place** in Code-Voyage, competing against **300+ participants** from multiple IIITs
- Achieved **top percentile ranking on LeetCode** with **rating of 1900+** and **300+ problems solved**, strengthening **algorithmic thinking, efficient coding practices**, and **software optimization** [Profile Link]
- Attained **3-Star rating on CodeChef** (**Rating: 1795**) through competitive programming contests and solving **100+ DSA problems** [Profile Link]
- Earned **NVIDIA Deep Learning** Institute Certification in neural network fundamentals and implementation [Certificate]