Shivam Vats

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EDUCATION

Indian Institute of Information Technology, Design and Manufacturing — Kurnool, AP
B.Tech in Artificial Intelligence and Data Science — *Aug. 2023 – Present*

Greenland Sr. Sec. Public School — Dattaur, Rohtak (HR)
High School, Science — *June 2022*

EXPERIENCE

Machine Learning Researcher — Jan. 2025 – Apr. 2025
Next-Gen Computing and Networking (NGCN), IIITDM Kurnool — *Kurnool, AP*
- Conducting research in Machine Learning under Dr. Srinivasa Desikan.
- Exploring fine-tuning and evaluation of Large Language Models (LLMs), with a strong focus on transformers.

PROJECTS

Sage – AI-Powered Desktop Assistant — GitHub
Python, PyQt5, Cohere, Groq, Selenium, Stable Diffusion
- Built a voice-enabled AI assistant with a PyQt5 GUI for task automation, real-time search, and content generation.
- Integrated conversational AI (Cohere, Groq), image generation (Stable Diffusion), and system control features.
- Implemented speech-to-text and text-to-speech for natural voice interaction using Selenium and edge-tts.

AI-Powered News Agent — GitHub
Python, Transformers, SQLAlchemy, Telegram API, Asyncio
- Developed an AI-powered news aggregator that scrapes, summarizes, and publishes articles to a Telegram channel.
- Used Hugging Face transformers for zero-shot topic classification and abstractive summarization.
- Designed an asynchronous, modular architecture using `asyncio`, `aiohttp`, and job scheduling with `schedule`.
- Built a scalable pipeline with separate scraping, NLP, and publishing layers backed by SQLite and SQLAlchemy ORM.

Portfolio Website – Showcasing Projects — GitHub
HTML, CSS, JavaScript
- Designed and deployed a personal portfolio website: shivamvats.netlify.app.
- Implemented a responsive and interactive UI with animations for a seamless experience.

RELEVANT COURSEWORK

Data Structures
Design and Analysis of Algorithms
Database Management Systems
Artificial Intelligence

CERTIFICATIONS

Machine Learning for Engineering and Science Applications (IIT Madras, NPTEL)
Google Data Analytics Professional Certificate (Google, Coursera)
IIT Bombay Certified Python 3.4.3 Training (Spoken Tutorial - IIT Bombay)

SKILLS

Languages: Python, Java, C, SQL
Web Development: HTML, CSS, Flask, Gradio, Figma
Machine Learning: Transformers, Scikit-learn, TensorFlow, PyTorch, Hugging Face, BERT, LSTMs
Developer Tools: Git, VS Code, PyCharm, IntelliJ, Eclipse
Libraries: Pandas, NumPy, Matplotlib
Others: Spreadsheets, Power BI