Deepanshu Sharma

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PROFILE

Aspiring Gen AI developer and final-year B. Tech CSE student, building real-world NLP tools and always eager to innovate.

EDUCATION

Bachelor of Technology in Computer Science Engineering 2022-2026
Moradabad Institute of Technology *U.P., India*
Intermediate 2021
St. Mary's Convent School Gajraula

SKILLS

- Python
- SQL
- Data Visualization
- Generative AI Tools (Transformers, Pytorch)
- Power BI
- Git & GitHub
- Prompt Engineering

EXPERIENCE

Generative AI Training & Internship - @IBM - Remote | 06/2025-07/2025
Completed 60-hour Generative AI training with hands-on projects like a Gemini chatbot, text/image generators, and sentiment analysis using RNNs. Gained hands-on exposure to RAG, RNNs, LSTMs, and encoder decoder models.

AIML Workshop Attendee – @NIT Jalandhar - Jalandhar | Mar/2025
Explored real-world use cases of ML, geospatial data, and predictive analytics.

Tata Data Visualization - Virtual Intern - @Forage - Remote | Jan/2025
Simulated dashboard development and data storytelling & helped visualize complex data for decision-making**.**

PROJECTS

- **TriSense: Multimodal Emotion Detector:** Technologies: Python, PyTorch, Hugging Face Transformers, OpenCV, Librosa,
-Engineered a multimodal emotion recognition system fusing Video, Audio, and Text inputs to detect complex emotional states.
-Fine-tuned state-of-the-art pretrained models - AfftNet (Visual), Wav2Vec2 (Audio), and GoEmotion-BERT (Text) - on MELD dataset - to capture facial expressions, vocal prosody, and semantic context.
-Implemented a Late Fusion strategy to aggregate probability scores from all three classifiers, significantly enhancing detection accuracy over unimodal baselines.

- **Image Caption Generator:** Designed a multimodal deep learning model integrating Computer Vision and NLP techniques, utilizing a pre-trained VGG16 (CNN) encoder and a custom LSTM decoder.
-Optimized model convergence using the Adam optimizer and categorical cross-entropy loss over 20 training epochs, utilizing a custom data generator to handle memory constraints.
-Implemented rigorous text cleaning and vocabulary mapping for 8,000+ images, validating the model with BLEU-1 and BLEU-2 metrics.

AI Text to Image Generator: Engineered a Generative AI application using Stable Diffusion v1.5 and the Hugging Face Diffusers library to synthesize high-fidelity images from natural language prompts.
Optimized inference latency and memory usage by implementing half-precision (FP16) calculations and leveraging CUDA GPU acceleration within a PyTorch environment.

CERTIFICATIONS

- **Python (@Cisco):** Gained proficiency in core Python syntax, control flow, and modular programming to solve computational problems and automate tasks.
- **Java (@Spoken Tutorial):** Mastered Object-Oriented Programming (OOP) principles and Java fundamentals to build robust and scalable application logic.
- **Machine Learning (@Simplilearn):** Acquired hands-on experience with supervised and unsupervised algorithms, regression models, and data preprocessing techniques.
- **My SQL (@Udemy)**: Developed skills in relational database design, data normalization, and writing complex queries for efficient data retrieval.
- **Big Data Hadoop (@Udemy):** Explored the Hadoop ecosystem, including HDFS and MapReduce, to process, store, and analyze large-scale datasets.

STRENGTHS

- Goal- oriented mindset
- Quick to Adapt
- Effective Communication Skills