Dinesh Yadav

Machine Learning/NLP Enthusiast

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Education

Cluster Innovation Center, Delhi University, 2022 - 2026
BTech in Information Technology and Mathematical Innovation, Current CGPA: 8.57
Navjeevan Science School, Sikar, Rajasthan, Class 12th, RBSE (State Board) 2019
- Class 12th: Percentage: 84.20%

Work Experience

DSKC Centre for Research & Innovation in Science Education — *Research Project* June - September 2024

Title Hybrid Approach for Sentiment and Intent Detection Using Transformers and ML Models : A Comparative Study

Developed a hybrid model integrating ML and transformers for context-based intent and sentiment analysis tailored to the transgender community, currently in the final stage of manuscript preparation for publication.

- **Younity.in, Delhi** — *Intern & Management Trainee in Sales and Marketing* March - May, 2023
  - Mentored a team of 68 interns and ensured target achievement
  - Additionally, it enhanced my communication skills, and managing trainees provided valuable real-world experience in human resource management.

Academic Projects

- **Machine Learning-Driven Injury Detection and Risk Prediction in Football Athletes** GitHub
  - Tools: Python, HuggingFace, Flask, Google Drive, HTML, CSS
  - Collected weekly NFL player data, including training history and injuries.
  - Implemented machine learning models to predict future injuries, achieved an 89% accuracy using Random Forest
- **Transforming Complex Texts into Clear Insights with LLMs** GitHub
  - Tools: Python, HuggingFace, Transformers, PyTorch, OpenAI API, LangChain
  - Developed a hybrid model combining machine learning and transformers to simplify complex texts.
  - Focused on simplifying technical and verbose texts while preserving their core meanings. used LLMs to generate semantically similar variations for improved readability across audiences.
- **Image generation and privacy preservation using unauthorised deep learning** GitHub
  - Tools: Python, OpenCV, Flutter, Firebase, Flask, diffusion models, GANs
  - Will be reproducing a research paper and generate variations of a reference image, focusing on facial data. The model should generate diverse yet semantically similar images, varying in angles, lighting, or expressions, while preserving key input features.

Certifications

- **IBM Machine Learning with python** – Coursera, October 2023
- **Complete Data Science, Machine Learning, DL, NLP Bootcamp** – Udemy, December 2024
- **Complete Generative AI Course With Langchain and Huggingface** – Udemy, Ongoing

Skills

- *Programming Languages*: Python, Java, c
- *Libraries & Tools*: Numpy, Pandas, Matplotlib, Seaborn, OpenCV, Scikit-learn, Keras, Flask, HuggingFace
- *Frameworks*: TensorFlow, Pytorch
- *Databases*: MySQL
- *Machine Learning Techniques*: ANN, RNN, LSTM RNN, Natural Language Processing, CNN, Sequence Models, Reservoir Networks, GANs
- *Hardwares*: Arduino, ESP32 & variants, Sensors