# Vivek Yadav

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## **Summary**

Analytical and self-driven aspiring Data Scientist with a solid foundation in statistics, machine learning, and data interpretation. Skilled in transforming raw data into actionable insights through thoughtful analysis and visualization. Proficient in Python, data manipulation, and model building, with a keen interest in solving real-world problems using data. Strong collaboration skills, with a focus on continuous learning and delivering data-backed solutions that drive business impact.

## **Work Experience**

Data Scientist March 2025 - Present

- Developed machine learning models for a hotel channel manager app to optimize pricing, booking rates.
- · Implemented dynamic pricing algorithms and time-series forecasting to enhance revenue management.
- Integrated the models into an API for real-time predictions and business insights.
- Improved booking efficiency by analyzing historical data and market trends.

## **Projects**

LearnMate - AI Learning Assistant — Python, OpenAI, gTTS, SpeechRecognition, Google Search, GCP

- Implemented voice command features, text-to-speech, and semantic understanding.
- Developed an AI-powered voice-enabled learning assistant tailored for educational use.
- Integrated OpenAI for intelligent response generation and external search for broader learning support.
- Optimized for screen-readers to aid visually impaired users.

Sentiment Analyzer Web App — Python, PyTorch, Recurrent Neural Networks (RNN)

- Built a sentiment analysis app to classify movie reviews as positive, neutral, or negative.
- Trained an RNN on IMDB dataset for text classification with real-time feedback and accuracy scores.
- Designed a user-friendly web interface for easy input and instant sentiment prediction.
- Included model confidence visualization and probability breakdown for each sentiment class.

DeepFake Detection System — Python, PyTorch, OpenCV, DenseNet, CFFN, GANs (DCGAN, CycleGAN, StyleGAN)

- Built a system for detecting DeepFake images using pairwise learning and Convolutional Feature Fusion Networks.
- Trained on 203k real and fake images generated from multiple GAN architectures.
- Achieved high accuracy by comparing inter-image relationships rather than relying solely on individual features.
- Integrated DenseNet for deep feature extraction and contrastive loss for model optimization.

## **Education**

## Jaypee University of Engineering and Technology

Bachelor of Technology in Computer Science

Guna, MP

July. 2022 - May, 2026

## INVOLVEMENT

#### Coordinator

Jaypee University of Engineering and Technology Guna • Google Developer Student Club JUET • August 2023 - May 2024

- Organized and participated in 5+ technical workshops and hackathons, focusing on technologies like Google Cloud, HuggingFace, engaging over 200 students.
- Facilitated peer learning sessions on topics like Machine Learning, Deep Learning, NLP, increasing club participation by 25%.

## **Skills**

HTML, CSS, C++, Python, Flask, Fast API, PyTorch, TensorFlow, Machine Learning, Deep Learning, NLP, ML-Flow, HuggingFace, LangChain, AWS, GCP, CI/CD, Git and Github, Docker