PANCHADIP BHATTACHARJEE

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SKILLS:

Artificial Intelligence (AI) | Machine Learning (ML)| Deep Learning | Neural Networks | CNN| PyTorch | Computer Vision | TensorFlow | Natural Language Processing (NLP) | OpenCV| Python | Keras | Data- Analytics | Data Visualization | Data Preparation | Feature Engineering | MySQL |AWS | Azure | BigQuery | Feature-Engineering MySQL| Reinforcement-Learning | LLM | Prompt-Engineering | Scikit-Learn| Numpy| Hugging-Face| Fine-Tuning

EDUCATION:

Manipal Institute of Technology, **2023-2027**
Manipal Academy of Higher Education- Manipal, Bengaluru Campus
Bachelor of Technology-Computer Science & Engineering (Artificial Intelligence)
8.62 GPA

RELEVANT PROJECTS:

1. Movie Recommender Model using Machine Learning (For Movie Streaming platforms)

Engineered a movie recommender for 10,000+ users, increasing recommendation precision by 10% and processing speed by 50% using Python and Cosine Similarity.

2. IPL Cricket Match Predictor using ML algorithms(Regression Model)

Designed an IPL match predictor with 85% accuracy, enhancing model performance by 20% and reducing data redundancy by 30% using Python and regression algorithms.

3. Image Classification Model: Classifying Cat vs Dog images

Built a CNN with 95% accuracy using TensorFlow and Keras, deployed via Flask, improving efficiency by 20%. Collected and pre-processed 25,000+ images.

4. Sentiment Analysis of Customer Reviews of an E-Commerce website

Generated a sentiment classifier with 88% consistency using Logistic Regression, SVM, Random Forest, and LSTM; preprocessed 20,000+ reviews with Natural Language Toolkit via Flask's API.

5. SMS Spam Classifier- Spam Detection Model using ML algorithms(NLP)

Assessed an SMS Spam/Ham classifier on 5000+ samples using Voting Classifier, integrating SVM, Multinomial Naive Bayes, and Extra Trees Classifier, attaining an accuracy of 94.16% and 96.17% precision.

6. Customer Churn Prediction of TELCO (-a Telecommunication company)

An accuracy of 85% was accomplshed; customer demographics, service subscriptions, and churn status of a dataset containing 8000+ records were analyzed and deployment was made as StreamLit.

7. Sales Prediction of D-Mart Stores (Big Scale Shopping Mall):

Developed a sales prediction model for D Mart shopping malls that resulted in 98.7% accuracy, 92.5% precision, 94.3% recall, and an R^2 score of 0.957 using random forest regression on historical sales data.

8. Credit-Card Fraud Detection Model (For Banks and Customers):

A Machine learning model that achieved 99.63% accuracy, 83.58% precision, 90.34% recall, and an AUC of 0.977 in detecting fraudulent credit card transactions using logistic regression on an imbalanced dataset

EXPERIENCE:

Codsoft-Machine Learning Intern

03/2024 - 04/2024

- **Contributions:**
  -Assembled over 50,000 diverse handwritten samples from different sources, pre-processed data to 45,000 most relevant samples
  -Employed RNN models for text-to-handwriting conversion using TensorFlow/PyTorch increasing model precison by over 25% and accuracy by over 30%.

- Implemented models to 45,000+ data samples, analyzed text quality for similarity and legibility having a minimum of 10,000 words and 500 sentences.

- **Outcome:** Enhanced User Experience with handwritten marketing materials by 35% and automated handwritting-creation by about 40% reducing manual efforts, generated natural-looking handwritten text from input text by using Python, TensorFlow, OpenCV and cloud deployment

COURSES & CERTIFICATIONS:

- **Google Data Analytics Professional Certification (Coursera):**
  Data preprocessing, cleansing, visualization, and analysis. | Handling big data and MySQL| Case studies.
- **Machine Learning with Microsoft Azure:**
  Building and deploying ML models. | Pipeline inferences and ML structures in Azure | Training datasets | Deployment | Computer Vision Applications | Natural Language Processing
- **IBM AI Professional Certification (Coursera):**
  Domains of AI, including computer vision and NLP | Image processing with OpenCV, CNNs, and RNNs | Training and deploying models in TensorFlow | Sentiment analysis and text classification.
- **IBM Generative AI for Project Managers and Developers (Coursera):**
  Generative AI models and large language models (ChatGPT, PaLM, Llama).
  Generative Adversarial Networks (GANs) and Variational Autoencoders (VAEs).
- **DeepLearning.AI Generative AI for Everyone:**
  Generative AI applications and implications | Ethical AI and prompt engineering | Retrieval Augmented Generation (RAG) and fine-tuning | Lifecycle of a Generative AI project and cost intuition | Responsible AI and advanced prompts.

ACHIEVEMENTS:

- Earned **AICTE Scholar** designation with a competitive scholarship, securing a fee-waiver of Rs 11,00,000 based on exceptional performance in the Manipal Entrance Test, demonstrating academic excellence and commitment to education.
- Ranked in the **top 0.104%** out of 1.2 million candidates appearing in JEE Main(Joint Engineering Examination) -2023 examination.

POSITIONS OF RESPONSIBILITY

- Project Manager & Innovation Architect, Manipal Bengaluru Open Source Community
- Vice President, Nexus Community, Null-OWASP Student Chapter
- Technical Vice Chair- Apex Community,MIT
- Executive Committee Member- ACM Student Chapter- MIT Bengaluru