GOURAV PANCHAL

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SUMMARY

Aspiring B.Tech CSE graduate specializing in Machine Learning with strong background in Python and Programming. Proficient in contributing Modeling teams, solving problems, and deriving actionable insights. Eager to gain industry experience and apply innovative solutions.

EDUCATION

B.TECH, Computer Science Graduating May 2025
Avantika University 8.02 CGPA
Ujjain, MP

SKILLS

Programming Languages: Python, SQL, C++
Machine Learning Frameworks: Scikit-Learn, Precision, recall, F1 score, Cross-validation.
Deep Learning: PyTorch, TensorFlow, Keras, CNN, Transfer learning (ResNet).
Data Analysis and Visualization: Pandas, NumPy, Matplotlib, Seaborn, Plotly.
Data Warehousing: Web Scrapping, ETL Processes, Data Modeling, Data Architecture, Analytical Skills.
Data Preprocessing: Data cleaning, feature engineering, handling missing data, scaling, and encoding.

PROFESSIONAL EXPERIENCE

NeevCloud, Indore: AI/ML Intern December 2024 – Present

- Contributed to Chanakya AI, developing advanced AI models for client-specific solutions.
- Built and optimized Automatic Speech Recognition (ASR) and Optical Character Recognition (OCR) models for real-time data extraction.
- Developed object and image segmentation/detection models using Mask R-CNN and transformers.
- Designed a text-from-image segmentation model, enhancing accuracy in extracting textual data from images.
- Involved in training, fine-tuning, and evaluating AI models, ensuring optimal performance and robustness.
- Conducted comprehensive data gathering and preprocessing to support model development and deployment.

InnoBytes, Maharashtra: Data Science Intern April 2024 – July 2024

- Developed an Image Recommendation System that takes an input image and utilizes machine learning and deep learning techniques (CNN, ResNet50) to identify and recommend the top 5 most similar images from a dataset, achieving high accuracy and enhancing user experience.
- Model is trained on 44,441 images of various accessories like Shirts, T-shirts, Pants,Watches, Bags and Shoes.
- Gained hands-on experience with image processing, deep learning models, and Python libraries such as TensorFlow and Keras. Utilized CNN and ResNet50 architecture to effectively extract features from images

ACADEMIC PROJECTS

Deep Learning Project :- Image Recommendation system
Developed a Image Recommendation system which take the image as input and predict the similar images.

- Utilized techniques to build the model :- Machine Learning, Deep Learning CNN, ResNet50, Python.
- Model is trained on 44,441 images of various accessories like Shirts, T-shirts, Pants,Watches, Bags and Shoes.
- Achieved high accuracy in predicting the similar images as outcomes, Enhanced User Experience and Interaction.

Machine Learning Project :- Fashion's Trend Analysis Model
Developed and implemented using a machine learning model to predict fashion trends based on past sales data.

- For predictive modeling, I utilized the Random Forest algorithm.
- Integrate the predictive model into business processes, inventory management, and targeted marketing campaigns for improved customer engagement and revenue growth. Published a Research paper on the Project.

Deep Learning Project :- Indian Traffic Sign Recognizing system
To Recognize and classify the Indian Traffic sign Images using Python, Machine Learning, CNN, Tensorflow and Keras.

- Developed a machine learning model to recognize and classify traffic signs, enhancing the model's utility in real-world applications for autonomous vehicles.
- Improved Model Accuracy through data augmentation techniques and hyperparameter tuning, achieving high precision in classification across diverse traffic sign categories.

Machine Learning Project :- Restaurant Data Analysis and Prediction

Delivered actionable insights through visualizations and enabling data-driven decision-making for restaurant operations.

- Built predictive models using Random Forest and Decision Tree algorithms to forecast sales, customer footfall, and menu success rates.
- Conducted comprehensive analysis on a restaurant dataset to uncover insights into customer preferences, menu trends, and operational performance.
- Tuned machine learning models through hyperparameter optimization to enhance accuracy and reliability.

Machine Learning Project :- Delhi AQI Prediction model

Developed a predictive model to forecast Air Quality Index (AQI) levels in Delhi.

- Using Python, Machine Learning (Random Forest, Time Series Analysis), Data Preprocessing, Visualization
- Aimed at helping urban planners and citizens make informed decisions.
- Utilized historical AQI data along with meteorological factors to improve prediction reliability.

RESEARCH EXPERIENCE

Fashion's Trend Analysis

Avantika University, B.Tech in Computer Science.

- Developed and Implemented a model using ML(Random Forest) to predict fashion trends based on past data.
- The paper has been presented at the International Conference on Advancement in Computer Technology, Management & Mathematical Sciences(ICACTMMS 2024).

Indian Traffic Sign Recognizing system

Avantika University, B.Tech in Computer Science.

- Implemented a system using CNN to recognize traffic sign by leveraging a large data sets.
- The paper has been presented at the International Conference on Advancement in Computer Technology, Management & Mathematical Sciences (ICACTMMS 2024)

ACHIVEMENTS

Sports secretary, Avantika University:

- Sports Secretary of Avantika University, orchestrated Athlos (in-house event) and Sparda (inter-college event).

Team Lead, Chakraview, Avantika University:

- Spearheaded the organization of the Chakraview event in 2022 and 2023, overseeing all aspects of planning, execution, and team coordination for successful outcomes.