Jitesh Matta

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Education

B.Tech in Computer Science (Specialization in Artificial Intelligence and Data Science) 7.86
Panipat Institute of Engineering and Technology, ***Kurukshetra University*** July, 2020 - June, 2024

Work Experience

Intern - Machine Learning July, 2023 - Sept, 2023
YHills EduTech Pvt. Ltd.

• Developed and implemented machine learning models **using Python, utilizing TensorFlow, PyTorch, and Scikit-learn** while optimizing performance through **data preprocessing, feature engineering, and hyperparameter tuning**.

• Evaluated model performance with **metrics like accuracy, precision-recall, and ROC-AUC**, integrating models into production pipelines using Flask, and cloud platforms such as AWS, GCP.

• Collaborated on live projects, participated in code reviews, and maintained documentation while following best practices in version control (Git), code modularity, and CI/CD for efficient deployment.

Projects

Hand Gesture Presentation Controller | Code Jan, 2024 - April, 2024

• **Objective:** Designed and implemented a computer vision-based system for controlling PowerPoint presentations using hand gestures, integrating real-time hand tracking and gesture recognition. Additionally, developed functionality to convert .pptx files into .png format for enhanced accessibility.

•**Technical Implementation:** Utilized cvzone.HandTracking and OpenCV (cv2) for real-time hand gesture recognition, leveraging mediapipe for precise hand landmark detection. Implemented a GUI interface using Tkinter for user interaction and presentation control. Integrated Spire.Presentation for automated PPT-to-image conversion and handled file operations using the os module.

• **Tools Technologies:** Python, OpenCV (cv2), cvzone, mediapipe, Tkinter, Spire.Presentation, OS module, Visual Studio Code.

Taxi Fare Prediction | Code Aug, 2023 - Oct, 2023

• **Objective:** Developed a machine learning model to predict taxi fares using a dataset of 50,000 rows with 8 key features, including pickup/drop-off coordinates, passenger count, and timestamp.

•**Implementation:** Performed data preprocessing, feature engineering, and applied regression modeling using Scikit-learn, optimizing performance through hyperparameter tuning and model evaluation.

• **Tools Technologies:** Python, Pandas, NumPy, Scikit-learn, Matplotlib, Seaborn, Jupyter Notebook.

Handwritten Digit Recognition | Code March, 2023 - June, 2023

• **Objective:** Developed a handwritten digit recognition system using a CNN model trained on the MNIST dataset, enabling real-time prediction through a custom-built canvas interface. The trained model was saved in .h5 and JSON formats for deployment.

•**Implementation:** Designed and trained a Convolutional Neural Network (CNN) using TensorFlow/Keras, performing image preprocessing, data augmentation, and model optimization. Created a real-time digit prediction system with a canvas for drawing digits, integrated with the trained model via Flask.

• **Tools Technologies:** Python, TensorFlow/Keras, MNIST dataset, Flask, HTML, CSS, JavaScript, Canvas API.

Technical Skills

- **Programming:** Java, Python
- **Web Development:** HTML, CSS, JavaScript
- **AI/ML:** NumPy, Pandas, Scikit-learn, OpenCV, Mediapipe, cvzone, TensorFlow, PyTorch
- **Tools:** Git GitHub, VS Code, Docker, Linux

Certifications Achievements

•**Data Structures Algorithms (DSA) in Java – Apna College**
•**Machine Learning: From Basics to Advanced – Udemy**
•**National-Level Badminton Player – Kendriya Vidyalaya**