Narendra Jani

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Education

Year	Degree/Certificate	Institute/Board	CGPA/Percentage
2020-Present	B.Tech. in Mechanical Engineering + Minor in Data Science	IIT Jodhpur	8.25 (Upto Sem 6)
2019	Senior Secondary	RBSE Board	94.60%
2017	Secondary	RBSE Board	90.00%

Projects

CUSTOMER SEGMENTATION & RECOMMENDATION SYSTEM | **Github** **Aug 2023**

- Leveraged **feature engineering** techniques to analyze customer buying behavior by extracting and examining data on **recency**, **frequency**, **monetary** metrics, product diversity, geographical variation, seasonality, and trends
- Developed a recommendation system aimed at enhancing the online shopping experience by suggesting products to customers based on the **purchasing patterns** in their respective clusters found by **K-Means clustering** algorithm
- Created a visual dashboard on **Power BI** to provide management with valuable insights, aiding decision-making and overall customer engagement
- **Tech Stack :** pandas, numpy, scikit-learn, Plotly, Power BI

ACTIVE LEARNING WITH GRAPH CONVOLUTIONAL NETWORK | **Github** **Aug 2023 - Sep 2023**

- Utilized Graph Convolutional Networks (GCN) for selecting potential samples in Active Learning framework
- Enhanced model performance, reduced training time by 90% and labeling cost by 80%
- Tested on four image classification benchmarks: CIFAR10, CIFAR100, GTSRB, FashionMNIST
- **Tech Stack :** PyTorch, OpenCV, matplotlib

FLIGHT DATA ANALYSIS | Self-Learning Project | **Github** **June 2023 - July 2023**

- Utilized **Amazon Web Services (AWS)** to build a data pipeline that facilitates the storage, **ETL** jobs, and analysis of U.S. flight data
- Created cloud data warehouse with **Amazon Redshift**
- Designed a **Power BI** visualization tool to illustrate key findings from the data
- **Tech Stack :** Amazon S3, Amazon Redshift, AWS Glue, Power BI

FACIAL EXPRESSION DETECTION | Self-Learning Project | **Github** **Dec 2022 - Jan 2023**

- Developed a deep learning model to classify facial expressions from videos and mapped them to avatars or emojis
- Implemented Active Learning framework to optimize the training process and significantly reduce training time
- Successfully deployed the model onto a local computer webcam, utilizing OpenCV's Haar Cascade XML for real-time facial expression recognition
- **Tech Stack :** TensorFlow, OpenCV, Haar Cascade xml

Technical Skills

Programming: Python C/C++ SQL Kotlin MATLAB Javascript HTML CSS

ML & DS: TensorFlow PyTorch Matplotlib PowerBI DL

Web/App & Tools: ReactJs NodeJs MongoDB AWS BootStrap GitHub LaTeX

Relevant Coursework

Introduction to Machine Learning	Calculus and differential equations	Linear Algebra
Introduction to Computer Science	Stat. Inference & Simulation techniques	Time series analysis
Data Structures and Algorithms	Introduction to Data Science	Scientific Computing

Position of Responsibility

- **Class Representative** | Mechanical 2020 Batch | IIT Jodhpur | 2022-23
- **Public Relations Head** | IGNUS-23 (Cult-Fest) | IIT Jodhpur | 2023
- **Public Relations Asst. Head** | Varchas-22 (Sports-Fest) | IIT Jodhpur | 2022
- **Technical Events Asst. Head** | Prometeo-21 (Tech-Fest) | IIT Jodhpur| 2021

Achievements

- Second Runner-up among 30 teams in Samsung pitching competition held at IITJ
- Ranked among the top 1% in JEE Advanced Examination