KAKANI VENKATA NAGA PAVAN TEJA

PROJECTS

Data Science Capstone Project: Falcon 9 First Stage Landing Prediction Aug 2023

Objective: Predicted the success of Falcon 9 first-stage landings to estimate launch costs and enable potential competitive bids against SpaceX

- Collected Falcon 9 landing data using RESTful API and web scraping techniques.
- Transformed JSON files into Python Pandas data frames for detailed analysis.
- Employed data wrangling techniques to prepare and cleanse data.
- Created scatter plots and bar charts to visualize and interpret landing data.
- Conducted SQL queries for specific data selection and sorting.
- Utilized Pandas for deeper exploratory data analysis.
- Developed an interactive dashboard featuring pie charts and scatter plots using Plotly Dash.
- Analyzed launch site proximities through interactive maps created with Folium library, featuring calculated distances, plotted coordinates, and marked clusters.
- Split data into training and testing sets for model validation.
- Trained and evaluated various classification models including SVM, Classification Trees, and Logistic Regression.
- Optimized model performances using hyperparameter grid search techniques.

Impact: Provided insights into potential cost savings for rocket launches based on Falcon 9 first-stage landing predictions, aiding in competitive bidding strategies.

Full-Stack Real time Chat application using MERN: May 2023

- Designed Front-end User-Interface for the application using HTML(Jsx), CSS(Scss), ReactJS
- Created Schemas and Models in MongoDB using Mongoose.
- Created a Back-end Using Express, Mongoose, API's.
- Created a Connection between Server and client using Socket.IO.

DES Implementation in Python *Dec 2021*

- Created Initial Permutation (IP) which is performed on the plain text
- Created two halves of permuted block, referred to as Left Plain Text (LPT) and Right Plain Text (RPT). Each LPT and RPT goes 16 rounds of the encryption process.
- Re-joined the LPT and RPT, and a Final Permutation (FP) is performed on the newly combined block. The result of this process produces the desired 64-bit ciphertext.

Student Result Management System *May2022*

- Created to address the flaws in the traditional practicing manual system and designed to remove or, in some circumstances, mitigate the difficulties that this system faces now.
- Developed front end website architecture.
- Designed user interactions on web pages and Front-end User-Interface(dashboard) for the application using HTML, CSS, Bootstrap and JS. PHP, MySQL (requires WAMPP server) were used for the backend operations between the server and database.

SKILLS

Technical Skills:

Programming and skills: Python, Javascript, SQL ,Data Structures in Python ,Data Analysis and visualization in Python ,Machine learning ,Python libraries Like Numpy ,Pandas ,Seaborn ,Matplotlib, Scikit-Learn

Web Technology: JavaScript, HTML, CSS, React, NodeJs ,Express ,Mongodb.

Operating Systems: Windows

Other Skills and Software Tools*:* Git, GitHub ,Jupyter Notebook, PremierPro CC ,Photoshop CC , Adobe XD , Generative Ai,Prompt engineering with OpenAI.

Management Skills

Problem Solving, Time Management, Communication Skills, Project Management ,Consistency

Languages

Fluent in English, Telugu

PERSONAL INFORMATION

Narasaraopet, Guntur, Andhra Pradesh| P: +91 7032364762 | tejavnp_kakani@srmap.edu.in | Linkedin

EDUCATION

SRM University, AP *June 2019-May 2023*
Bachelor of Engineering, Computer Science Engineering: CGPA: 7.5/10.0

BHASHYAM IIT JR COLLEGE May 2017-April 2019
CGPA:8.7/10.0

BHASHYAM HIGH SCHOOL May 2016- March 2017
CGPA:9.2/10.0

CERTIFICATIONS & TRAININGS

Coursera – IBM Data Science Professional Certificate Aug 2023

Udemy – Data structures and Algorithms July 2023

Udemy - fullStack web development - Node Js, React, Mongodb, Javascript, HTML, CSS, Express, API May 2023