JOSHUA SAMRAJ | +91 7305955939 | Gmail | LinkedIn | Github | Leetcode

"Aspiring Data Scientist | Skilled in Python, Machine Learning"

SUMMARY

Data Science Aspirant with expertise in Python, machine learning, and AI, backed by hands-on experience in robotics, backend development, and real-world data-driven projects. Proficient in tools and frameworks such as Pandas, MongoDB, OpenCV, and Streamlit, with a strong ability to translate complex data into actionable insights and deploy intelligent solutions.

SKILLS

Programming Languages:

Python, C, SQL, HTML, CSS,JS

Data Science & Analysis:

Pandas, NumPy, Power BI, Microsoft Excel, OpenCV, Mediapipe,tensorflow,Django,Streamlit

Databases:

MySQL, MongoDB

Tools & Platforms:

Visual Studio Code, Jupyter Notebook, Raspberry Pi

Other

Automation (GPIO), Data Visualization, API Integration

PROJECT

Real-Time Plant Disease Detection using YOLOv8 | LinkedIn | Jan 2025 – Feb 2025

- Designed and implemented a data-driven object detection system to identify tomato plant diseases using YOLOv5.
- Performed data preprocessing, annotation conversion, and augmentation to improve model robustness.
- Evaluated model performance using metrics like mAP and IoU, and fine-tuned hyperparameters for optimized results.
- Applied computer vision techniques to support precision agriculture, improving early diagnosis and crop health monitoring.

Key Skills: Python, PyTorch, YOLOv5, OpenCV, Data Augmentation, Model Evaluation

Earthquake Data Analysis and Visualization | LinkedIn | Dec 2024 – Jan 2025

- Analyzed global earthquake datasets to uncover trends in magnitude, depth, and frequency using Pandas and NumPy.
- Built interactive data visualizations and geospatial maps using Plotly, Seaborn, and Folium to highlight seismic hotspots.
- Applied clustering algorithms (e.g., K-Means) to detect regions of concentrated seismic activity.
- Deployed the analysis as an interactive Streamlit web app for real-time exploration and user engagement.

Key Skills: Python, Pandas, Seaborn, Plotly, Folium, K-Means Clustering, Streamlit, EDA

Experience

Data Analyst (Part-Time)

GeoSavvy — Jun 2024 – Present

- Analyzed large-scale environmental and sensor datasets to extract actionable insights for geospatial intelligence applications.
- Built interactive dashboards and automated reports using Python (Pandas, Matplotlib, Seaborn) to support decision-making.
- Collaborated with cross-functional teams to preprocess and clean raw data for modeling and visualization tasks.

- Streamlined data workflows and improved data accuracy, reducing processing time by 30%.

Key Tools: Python, Pandas, NumPy, Seaborn, Excel, Streamlit, Jupyter

Mini Project

Ambulance detection using image processing | Github

- Due to heavy traffic Some time a ambulance was stuck in a traffic in emergency time
- To avoid that I create a project using computer vision (Image Processing) to detect a ambulance and trigger a alert in traffic signal
- For this project I use python language
- Lib:Opencv,yolov8,Flask

Controlling Home application Using Hand Sign:

- This project was mostly used for physically Disabled people to Controll a home application Just Using Hand sign
- By using this product they can control a home application by sit in chair and using just hands
- For this project I use opencv,mediapipe and raspberry pi4
- Patent link: Click Here

Supermarket Sales Dashboard | LinkedIn Post | GitHub

- Designed an interactive Supermarket Sales Dashboard in Excel (Power Query, Pivot Tables, advanced charting) using 5 000+ rows of transactional CSV data.
- Performed in-depth data mining to uncover gender, city, and product-line trends, boosting insight granularity for retail decisions.
- Built dynamic filters (date, month, product line) and KPI visuals that highlight daily, monthly, and category-level performance at a glance.
- Delivered a clean, executive-ready BI asset leveraged by analysts and managers for rapid, data-driven strategy.

Patent Published

Controlling Home Application Using Hand Sign: | Drive Link

Co-inventor of a published patent titled *"Hand Gesture Control for Smart Home Applications"* (App. No. 202441070407 A).Developed a vision-based system using machine learning to control smart devices via hand gestures.Enhanced accessibility for users with mobility or speech impairments through non-verbal interaction.

Published in the Indian Patent Journal on October 4, 2024.

Enhancing High Level Of Bike Security System | Drive Link

Lead inventor of the published patent *"Enhancing High Level of Bike Security System by Implementing Two-Way Verification Method"* (App. No. 202541010152 A).

Designed a voice-enabled bike security system integrating GPS, motion, and vibration sensors for advanced protection.

Implemented mobile app connectivity for real-time alerts, location tracking, and remote control.

Published in the Indian Patent Journal on February 14, 2025.

EDUCATION

Francis Xavier Engineering College- Tirunelveli. (2022-PRESENT)

IRT Polytechnic College – Tirunelveli.(2018-2022)