JAISON JOSEPH
Bangalore, India | JosephJaison629@gmail.com |(+91) 9108302904 | Portfolio

Professional Summary

Data Science Engineer with hands-on experience in data analysis, machine learning, and data engineering. Proficient in Python, SQL, and frameworks like TensorFlow and Flask. Led impactful projects in MRI classification, AI-based platforms for visually impaired users, and football player tracking. Internship experience with object detection using YOLOv8 and OCR tasks using PaddleOCR. Knowledgeable in big data tools like Hadoop and Kafka, and visualization platforms such as Power BI and Tableau. Passionate about applying data-driven insights to solve real-world challenges.

Work Experience

Trecent Systems- Pune, India Jul 2024 - Sep 2024

Machine Learning Engineer Intern

- Engineered traffic object detection systems under the VIDS project using deep learning and computer vision techniques.
- Annotated and processed over 20,000 video frames using CVAT, creating high-quality datasets for object and license plate detection.
- Trained and fine-tuned models using YOLOv8n and YOLOv8x, enhancing detection accuracy on complex road scenes.
- Built tracking and behavioral analysis modules using BYTE Tracker, DEEP SORT, and Euclidean distance for reverse/stationary vehicle detection.
- Deployed and optimized PaddleOCR for license plate recognition, including model tuning on a custom dataset.
- Applied preprocessing techniques like binarization and sharpening using OpenCV and Pillow, improving detection and OCR reliability.

Projects

Football Player Tracking System [GitHub] – Python (YOLOv8, OpenCV, CNN, NumPy)

- Computer vision system for tracking football players and analyzing team formation dynamics.
- Used homography to align multi-angle views and detect player positioning.
- Generated connection maps and heatmaps to visualize real-time player movement.

AI-Based E-Learning Platform [GitHub] – Flask, HTML/CSS, JavaScript, PostgreSQL

- Accessible platform for visually impaired users with voice navigation, quizzes, and chatbot features.
- Integrated voice commands and audio modules to enhance learning interactivity.
- Implemented secure login and behavior logging for personalized user experiences.

MRI Classifier [GitHub] – Python (TensorFlow, PyDICOM,NumPy, Pillow), SQLite

- MRI classification system that distinguishes between T1, T2, and FLAIR images.
- Built an automated image preprocessing and classification pipeline.
- Stored classified outputs in a structured image database based on detected type.

Skills

Languages: Python, SQL

Frameworks/Libraries: TensorFlow, Flask, YOLOv8, PaddleOCR, NumPy, Pandas, OpenCV

Big Data: Apache Hadoop, Apache Kafka, Apache Spark, Apache Airflow

Cloud/Databases: AWS, Snowflake, MySQL, MongoDB

Visualization Tools: Power BI, Tableau, MS Excel, Qlik View

Dev Tools: Git, CVAT, Jupyter Notebook, VS Code

Education

Jain School of Engineering and Technology – Bangalore, India Aug 2021 - Jun 2025

Bachelor of Technology in Computer Science and Engineering (Data Science – Honors) **CGPA**: 8.05/10

Christ P.U. College – Malur, India Jun 2019 - Mar 2025

Pre-University Course (Science) **Percentage**: 75.4%