

# MOONEAN SIRENDRA

## DATA SCIENTIST



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Morcellement La Sourdine, L'Escalier

### SKILLS

- Programming Language
  - Python
- Data Engineering
  - SQL & Data Modelling and Transformation
  - ETL
- Machine Learning
  - Supervised & Unsupervised Learning
  - Feature Engineering and Selection
  - Model Selection, Tuning and Evaluation (scikit-learn, XGBoost, LightGBM)
- Deep Learning
  - Neural networks (CNNs, RNNs, LSTMs)
  - Frameworks: TensorFlow, PyTorch, Keras
  - Transformers and LLMs (Hugging Face, custom pre-training/fine-tuning)
  - Reinforcement learning and multi-agent framework (Langchain and LlamaIndex)
- MLOps & Deployment
  - CI/CD pipelines: GitHub Actions
  - Streamlit and FastAPI for app deployment
- Data Visualization
  - Power BI (dashboarding, DAX, reporting)
  - Power app and power automate
- Soft Skills
  - Teamwork & Cross-functional collaboration
  - Strong problem-solving
  - Flexible and adaptable

### EDUCATION

#### MSc Data Science and Artificial Intelligence

April 2024 - April, 2025

University of Suffolk

#### BEng(HONS) Mechatronics Engineering

2017 - 2021

University of Mauritius

### CERTIFICATIONS

Introduction to Statistics for Data Science - 2024 (CPD certified)

Autodesk Revit Essentials MEP as a BIM tool - 2023 (Autodesk Certified Professional)

### LANGUAGES

English

French

Creole

### PROFILE

A highly driven and analytical professional with a robust background in Mechatronics Engineering, a master in Data Science and Artificial Intelligence. I am dedicated to refining my skills to secure a challenging role in the data analytics field. With a strong commitment to addressing the complexities of this domain, I am eager to apply my existing knowledge to deliver meaningful and impactful contributions.

### WORK EXPERIENCES

#### Data Scientist

November, 2024 - Present

Bioculture Group - Mauritius

- Build algorithms and design experiments to merge, manage, interrogate and extract data to supply tailored reports to particular departments and Top Management.
- Use machine learning tools and statistical techniques to produce solutions to operational problems.
- Implement analytical models into production.
- Analysis of scientific and business data to identify issues and use data to propose solutions for effective decision making.
- Assess the effectiveness of data sources/data-gathering techniques and improve data collection methods.

#### Mechatronics Engineer

KYA Engineers Ltd - Mauritius

October, 2021 - November 2024

- Perform engineering calculations and design to align with project goals.
- Prepare bills of quantities and tender documentations within budget and specifications.
- Ensure project compliance and safety through site inspections.
- Analyze architectural designs and engineering plans for optimal system implementation in new and existing facilities.

### PROJECTS

#### Leveraging NLP Techniques for Automated Interpretation of Handwritten Clinical Text

- Implemented AI chatbot combining Tesseract OCR and LLaMA 2 for clinical handwritten text extraction and interpretation.
- Implemented OCR preprocessing pipeline and MiniLM embeddings for semantic search and chunking
- Engineered structured prompt injection techniques to control LLaMA 2 outputs and minimize hallucinations without fine-tuning.
- Deployed Streamlit-based front-end interfaced with backend LLM inference

#### Optimizing Hotel Booking Cancellation Predictions Using Decision Trees and Random Forest Techniques

- Created a hotel booking cancellation prediction project using historical booking data.
- Implemented Exploratory Data Analysis, Decision Tree, Random Forest and hyperparameters tuning to obtain optimal performance and highest accuracy.
- Enhanced hospitality management through data-driven insights.

#### Flower Classification using Deep Learning and CNN Techniques

- Designed and trained of a CNN model for classifying images of flowers
- Used various optimization strategies to enhance performance

#### Design of an AI Cloud-Based Hospital system using AWS

- Designed an AWS cloud infrastructure for early disease diagnosis
- Proposed AWS services for effective scalability, security, storage, cost-efficiency, data analytics and model training and deployment
- Proposed a tailored cloud migration strategy