JASMIN BABARIYA

M.Sc. Agriculture Analytics

EDUCATION

Dhirubhai Ambani Institute of Information and Communication Technology (DA-IICT)
CPI: 8.1
📅 July 2023 – Present   📍 Gandhinagar, Gujarat

Junagadh Agricultural University (JAU) (B.Sc. (Hons.) Agriculture
CPI: 7.6
📅 2019 – 2023   📍 Junagadh, Gujarat

Class 12th School (GSEB)
Percentage: 86.50%
📅 2017 – 2019   📍 Junagadh, Gujarat

SKILLS

Area(s) of Interest : Data Analysis, Machine Learning, Deep Learning, Geo spatial Analysis, Finance, Data Visualizations etc.

Programming Languages : Python, SQL, NoSQL, Basic R.

Tools : MongoDB, Postgres, QGIS, ENVI, SNAP, ArcGIS Pro, ERDAS, GEE

Technologies : Flask, AutoML

Visualization Tools : Power BI, Tableau

Libraries : NumPy, Pandas, Matplotlib, Seaborn, Scikit-Learn, TensorFlow, Keras, PyTorch

EXPERIENCE

Semantic Technologies and Agritech Services Pvt Ltd:
📅 May 2024 - July 2024   📍 Pune, Maharastra

•I led **ML and DL projects** funded by the **Ministry of Agriculture and Farmers' Welfare** at Semantic Technologies and Agritech Services Pvt Ltd. Developed crop classification, signature generation, and NPK prediction models deployed via Flask and integrated with FastAPI for the CropTech Pro Mobile App, optimizing agricultural practices.

PROJECTS

Satellite Based Crop Mapping and Area Estimation:
📅 May 2024 - July 2024

•As a **Geo-spatial Data Scientist**, I led the project titled "Satellite Based Crop Mapping and Area Estimation." Utilizing remote sensing data and advanced GIS techniques, I developed algorithms for accurate crop mapping and precise area estimation. This project demonstrated my expertise in spatial analysis, satellite imagery interpretation, and algorithm development for agricultural applications.
• **Guide:** Mr. Ashutosh Pawar

Soil Organic carbon Prediction in Dhanaulti Region Using ML Approach:
📅 March 2024 - April 2024

• I Led GIS and ML project in Dhanulti district predicting Soil Organic Carbon. Employed QGIS, ArcGIS, Python (Rasterio, GDAL, NumPy, Pandas), and R's **Quantile Regression Forest**. Mapped SOC and Uncertainty with 90 ground truth data points, highlighting spatial analysis and ML proficiency in environmental modeling.
• **Guide:** Mr. Justin George K

Cotton Yield Prediction for Gujarat Using ML and PostgresML:
📅 January 2024 - February 2024

• Used ML to predict Gujarat cotton yield, leveraging web-scraped data and regression algorithms. Streamlit interface enabled farmer-friendly input and yield forecasts, focusing on data engineering, regression training, and interface development.
• **Guide:** Mr. Kapil Oberai

PERSONAL PROFILE

Known language : Gujarati, English, Hindi

INTERESTS

- Investment (Stock Market)
- Climbing Mountain
- Playing Outdoor and Indoor games

ACHIEVEMENTS

- Spatial Analysis with ArcGIS Pro by **ESRI, India**
- Application of Advanced Geospatial Technologies in Agriculture with special reference to Crop Yield Modelling and Agromet Parameter Retrieval by **Amnex Technology**
- Microwave Data Processing and Applications by **Space Application Centre, ISRO**
- Advance Excel, Power BI and Tableau by **The Pioneer Tech**