

DEEP RABADIYA

📍 Jamnagar, Gujarat | 📞 9510108275 | ✉️ deepp6603@gmail.com | [in LinkedIn](#) | [Github](#) | [Portfolio](#)

ABOUT

I am a passionate Geospatial Analyst with strong expertise in Remote Sensing, GIS, and Data Science. I specialize in satellite image analysis, spatial modeling, and geospatial data management. With hands-on experience in Google Earth Engine, Python, and GIS software (ArcGIS, QGIS, SNAP, ERDAS), I focus on applying geospatial technologies and AI(ML/DL) to solve real-world challenges. I am eager to collaborate on innovative projects that leverage geospatial intelligence for data-driven decision-making.

EDUCATION

Dhirubhai Ambani Institute of Information and Communication Technology <i>M.Sc. Geospatial Data Science (8.2/10)</i>	Gandhinagar, GJ 2023 – 2025
Indian Institute Of Remote Sensing-ISRO <i>M.Sc. Second Semester</i>	Dehradun, UK 2024

EXPERIENCE

Assistant Remote Sensing and GIS Manager <i>SBI General Insurance</i>	Jan 2025 - Present New Delhi
<ul style="list-style-type: none">Preprocessed Sentinel-2 optical data using Python libraries (Rasterio, GDAL, Geopandas, NumPy, Pandas) for stacking, mosaicking, Reprojection, Clipping etc. and Preprocess raw Sentinel-1 images using Snappy library in Python like Apply orbit file, speckle filter, terrain correction etc.Crop classification, acreage estimation, and yield forecasting by developing AI/ML and Deep Learning models integrated with remote sensing datasets.Utilized Google Earth Engine (GEE) for preprocessing and downloading optical (Sentinel-2) and SAR (Sentinel-1) data, including cloud masking, compositing, and temporal aggregation. Developed flood detection and damage assessment pipelines in GEE using Sentinel-1 data. And used for Rice Crop Classification using ML.Leveraged GIS platforms (ArcGIS, QGIS, SNAP, ERDAS Imagine) for vector data handling, spatial visualization, and thematic mapping to support decision-making.Designed workflows for weather data extraction, transformation, and integration from APIs and gridded datasets (IMD, NASA POWER, ERA5, CHIRPS) to support crop modeling and risk assessment.	
Remote Sensing and GIS Analyst <i>Semantic Technologies and Agritech Services Pvt Ltd</i>	May 2024 – July 2024 Pune, Maharashtra
<ul style="list-style-type: none">At Semantic Technologies and Agritech Services Pvt Ltd, I leveraged SAR and optical data to develop machine learning models for crop health and area estimation, enhancing agricultural productivity. And also working on DPRVI for crop health assessment.	
Machine Learning Intern <i>Coding Samurai</i>	March 2024 – April 2024 Remote
Machine Learning Intern <i>Mentorless</i>	March 2024 – March 2024 Remote

TECHNICAL SKILLS

Languages: Python, R, SQL
Tools and Technologies: ArcGIS, QGIS, ERDAS IMAGINE, SNAP, Envi, Google Earth Engine, PostgreSQL, Power BI, Looker studio, Advance Excel, Ms-Office
Libraries: Pandas, NumPy, Matplotlib, Rasterio, Gdal, Geopandas, Sklearn, TensorFlow, OpenCV

PROJECTS

Land Cover Change Detection (Deforestation)

- Implemented land cover change detection for deforestation using multi-temporal satellite imagery in Python. Applied a Random Forest classifier on spectral features to accurately classify land cover and map deforested areas.

Crop Recommendation System

- Fruit Crop Recommendation System – Built a crop recommendation tool using PostgresML, Streamlit, and various ML algorithms to suggest optimal fruit crops based on soil nutrients (N, P, K), moisture, temperature, and environmental factors. Designed predictive models leveraging historical agricultural data to provide tailored, data-driven recommendations for improving productivity and sustainability.

Price Forecasting for Tomato using various Statistical models

- This project focuses on forecasting tomato prices using 14 years of historical data on prices and arrivals. It applies advanced statistical models including ARIMA, SARIMA, ARIMAX, SARIMAX, ARCH, GARCH, VAR, and VARMAX in Python to demonstrate the effectiveness of accurate market trend prediction.

Web GIS (Web Mapping Of Ramsar Sites of India)

- This project focuses on developing a Web GIS platform for mapping Ramsar Sites of India using GeoServer, PostgreSQL/PostGIS, QGIS, HTML, and JavaScript. It enables interactive visualization and spatial querying of wetland data through a user-friendly web interface.

Tomato Disease Classification using CNN

- Tomato Leaf Disease Classification using VGG16 – Fine-tuned a pretrained VGG16 model to classify 10 tomato leaf disease classes. Preprocessed images using OpenCV (background removal) and applied data augmentation to enhance training data diversity and model accuracy.

Crop Yield Estimation using ML and Semi Physical Model

- Crop Yield Estimation using Machine Learning stacking ensemble model to predict crop yield.
- developed a semi-physical model integrating satellite-derived biophysical parameters (fAPAR, PAR, water/temperature stress) with field-level data for accurate yield estimation.

CERTIFICATIONS

Microwave Data Processing and Applications | *Space Application Centre, ISRO*

Spatial Analysis with ArcGIS Pro | *esri India*

Crop Yield Modelling using Advance Geospatial Technologies | *Amnax Infotechnologies*

Advance Excel, Power BI and Tableau | *The Pioneer Tech*

Developing Web-based Geographical Information Systems | *Nascent Infotech*

Application of Geoinformatics in Ecological Studies | *IIRS, ISRO*

Python for Computer Vision with OpenCV and Deep Learning | *Udemy*