

Sarang Gulve

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PROFILE SUMMARY

Results-driven Data Scientist and Remote Sensing Specialist with expertise in AI, ML, Python, TensorFlow, SQL, and satellite imagery. Delivered end-to-end projects in agriculture, climate forecasting, and AI-powered applications to drive data-driven solutions.

EXPERIENCE

PlanetEye Farm AI | Data Scientist (Onsite-Nashik) | March 2025 - July 2025

- Technologies Used: Python, FastAPI, Remote Sensing, Geo-Spatial Data

- Developed machine learning and deep learning models for predictive analysis using Sentinel-1 and Sentinel-2 satellite imagery.
- Built FastAPI endpoints for Smart Crop Analytics platform, processing 1000+ satellite image requests daily. Implemented Geo-spatial data processing workflows for Area of Interest (AOI) analysis and classification.
- Created automated vegetation, water, and moisture index calculations using Earth Engine API and GEE map. Collaborated with cross-functional teams to deliver remote sensing solutions for agricultural clients.

Digital Hercules Innovations | Data Analyst (Onsite-Noida) | Sept 2024 – Feb 2025

- Technologies Used: Python, Flask, Dialogflow

- Performed statistical analysis and predictive modeling on company datasets, generating actionable business insights that improved decision-making efficiency.
- Developed interactive Power BI dashboards to track KPIs, reducing reporting time.
- Implemented comprehensive data preprocessing pipelines to clean, transform, and optimize datasets and also presented data-driven recommendations to stakeholders through clear visualizations and reports.

ESDS Software Solution Limited | Data Scientist (Onsite-Nashik) | June 2022 – July 2022

- Technologies Used: Prompting, LLM Evaluation

- Developed and optimized machine learning classification model using Iris dataset, achieving high accuracy through advanced data preprocessing techniques.
- Designed and implemented AI-driven web application following SDLC methodology using fastAPI and Streamlit.
- Integrated Scikit-Learn for model training and deployed real-time classification solution.

PROJECTS

Agricultural Crop Land Monitoring System | [Github](#)

- Technologies Used: Python, Remote Sensing and ML

- Built a comprehensive crop monitoring system using Sentinel-1/2 satellite data and Earth Engine API.
- Calculated vegetation indices (NDVI, EVI), water indices, and soil moisture metrics for 500+ agricultural plots.
- Implemented automated alert system for crop health anomalies using machine learning algorithms.
- Exported geospatial data as GeoTIFF and vector formats for integration with existing farm management systems.

Sugarcane Crop Identification System | [Github](#)

- Technologies Used: Remote Sensing, ML, Satellite Image Processing

- Developed an automated sugarcane crop identification system using satellite imagery, remote sensing, and machine learning on Sentinel-1/2 data.
- Delivered end-to-end geospatial solutions by applying computer vision, processing raster/vector data, and generating layered GeoTIFF masks with AOI-based latitude-longitude extractions.

Plant Disease Detection System | [Github](#)

- Technologies Used: Computer Vision, Deep Learning and Convolutional Neural Network

- Developed CNN-based plant disease detection system using TensorFlow and Keras with High accuracy.
- Processed and augmented Potato Leaf dataset (10,000+ images) to enhance model generalization.
- Evaluated model performance using precision, recall, F1-score, and confusion matrix analysis.

AWAAJ AI Dubbing System | [Github](#)

- Technologies Used: NLP, Deep Learning, RNN,CNN

- Built multilingual AI dubbing system integrating Speech Recognition, Voice Cloning, and Text-to-Speech technologies.
- Implemented sentence transformers and MySQL database integration for multilingual content management.
- Developed interactive Streamlit UI for seamless user experience and real-time processing.
- Utilized ANN architectures for speech synthesis and lip synchronization

EDUCATION

B.E. in AI and Data Science

Savitribai Phule Pune University

Sep 2021 – Jun 2024

Diploma in Computer Science

Lokneta Gopalraoji Gulve Polytechnic, Nashik

Aug 2019 – May 2021

TECHNICAL SKILLS

AI and Data:

- Prompt Engineering:** Data Annotation, LLM Evaluation.
- Tools and Platforms:** Jupyter Notebook, Postman, Power BI, Git, GitHub, Docker, n8n.
- Data Analysis:** Data Visualization (Power BI), Data Modeling, EDA, Feature Engineering.
- Machine Learning Models:** Linear & Logistic regression, Decision tree, Random Forest, SVM, K-means, KNN, ARIMA.
- Deep Learning:** Computer Vision, Recurrent Neural Network, Feed Forward NN, Convolutional Neural Network.

Tech Stuff:

- FastAPI, Streamlit, YOLO
- Tensorflow, Keras, Pytorch, Scikit learn, Pandas, Numpy, HuggingFace, OpenCV.

Remote Sensing and Geo-spatial Stuff:

- Google Earth Engine API, GEE map, Sentinel-1/2, Rasterio, Geospatial Analysis.

Programming Languages:

- : Python, JavaScript (Earth Engine Code).

Databases:

- MySQL, PostgreSQL.

Cloud & DevOps:

- Linux, Render.

CERTIFICATIONS

- Python Certification
- Machine Learning Specialization.
- Data Analytics Corporate Training Program by Jobajaj learning

HOBBIES

- Trying New Technology, Farming, Gaming, Reading Books

LINKS

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