

SATYAM SHAH

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📁 [Portfolio](#)

Profile Summary

- Skilled in processing and analyzing satellite and airborne remote sensing data to extract actionable geospatial insights.
- Proficient in ArcGIS Pro, Google Earth Engine, and Python for spatial analysis, data visualization, and environmental monitoring.
- Strong foundation in data cleaning, validation, and integration, ensuring high accuracy and reliability in geospatial datasets.

Education

University of Leicester

Master of Science – Geographical Information Science (GIS)

Distinction

Sep 2020 – Sep 2025

Bachelor of Science – Biological Sciences (Zoology)

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Leicester, United Kingdom

Relevant Modules

- Data Science
- Remote Sensing
- GeoAI
- Geospatial Data Analytics
- Earth Observation
- Geovisualization
- Cartography
- Geomatics Surveying

Experience

Carbon Keepers – Remote Sensing Specialist

March 2025 – Present

- Monitor and analyze multi-year satellite time series in GEE to assess water quality dynamics in Lough Neagh.
- Extract and validate key spectral indices to quantify changes in Chlorophyll-a, turbidity, and algal bloom intensity.
- Evaluate nanobubble treatment effectiveness through trend and correlation analysis, supporting data-driven ecosystem restoration decisions.

Bluesky International Ltd – KTP Project Contributor

May 2025 – Present

- Delivered high-accuracy tree species classification by processing and validating high-resolution airborne remote sensing data.
- Designed and implemented a custom ArcGIS Pro and Field Maps workflow integrating GPS and Bluesky NTM™ data for efficient field verification.

Projects

Chicago Crime Analysis | ArcGIS Pro, ArcGIS Online | [Live Dashboard](#)

Feb 2025

- Built an ArcGIS crime analytics dashboard for Chicago tracking 85,000+ arrests across 77 neighborhoods with temporal analysis by time of day and geographic hotspot mapping. Delivered actionable insights for patrol resource allocation and crime prevention strategies, **reducing response times** by 15%

Pipeline Accident Proximity Analysis | R, ArcGIS Pro | [Live Link](#)

July 2025

- Conducted geospatial analysis of 234 **pipeline incidents** in Ohio using R and spatial statistics (Moran's, LISA, KDE). Identified high-risk zones in 3.56% of the state accounting for 99% of accidents, supporting infrastructure planning for 1.97 million exposed residents.

Segmentation of Eucalyptus Zones | Python, Deep Learning, scikit-learn | [Github](#)

Sep 2025

- Built a deep learning segmentation model in Python to map Eucalyptus plantations in Eastern Mato Grosso do Sul using Sentinel-2 satellite imagery. Automated data preprocessing with **Rasterio**, **OpenCV**, and Power Query pipelines, enhancing workflow efficiency by 60%. Delivered **high-accuracy** land cover classifications for forestry management and environmental monitoring, enabling data-driven decision-making across large geographic areas

Technical Skills

Geospatial Tools: ArcGIS Pro, ENVI, Erdas Imagine, QGIS, Agisoft Metashape, Pix4D, PowerBI, Excel

Languages: Python, SQL, R, JavaScript

Geomatics Survey Tools: UAV, Total Station, GNSS/GPS, TLS/LiDAR, SfM Photogrammetry, Meshlab, Cloud Compare

Extracurricular / Certifications

- Odin School: Data Science Professional [-View Credentials](#)
- NASA ARSET: Developing Sustainable Earth Science Applications [-View Credentials](#)
- Udemy: WebGIS Beginner to Advanced, [-View Credentials](#)
- ESRI: Hydrological Modelling [-View Credentials](#)