

# ABHISHEK AKARAM PATIL

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## PERSONAL STATEMENT

Actively incorporating GIS workflows into the core systems of scientific, water, telecom, and environmental organisations — streamlining their desktop & field tasks to make work faster, more accurate, & just a bit more exciting than endless spreadsheets & manual mapping. Because who doesn't love saving time & looking good on a dashboard? Experienced in using tools & scripts for data extraction & manipulation (including Satellites, UAV & USV). Proficient in GIS & Remote Sensing software such as ArcGIS, QGIS, Agisoft Metashape, GEE, and ERDAS Imagine. Supporting businesses by integrating geospatial data to enhance decision-making efficiency. Moreover, with previous professional experience, demonstrates competency in leadership, communication, managing people & resources, & fostering relationships with stakeholders.

## KEY ACHIEVEMENTS

- Recognised as a 'Top Geographical Information Systems (GIS) Voice' by LinkedIn
- Appointed on a panel of experts for Geography subject at Amity University, Noida, India. (2023)
- Fellow of the Royal Geographical Society (RGS), UK (Applying for Chartership)
- Recipient of [NESA UGRAD](#), a fully funded scholarship by the U.S. govt. (One of the 5 students from India)
- Awarded the University of Glasgow International Leadership Scholarship of £10,000.

## PROFESSIONAL EXPERIENCE

### GIS Analyst @One Alliance

Skanska, UK

Oct 2025

Anglian Water, UK

Oct 2025

- Worked closely with the **Innovation Team to develop a Suitability Model**, creating an end-to-end geospatial workflow to identify **waterlogged areas** for optimal pipeline routing. Integrated spatial data, field surveys, machine learning outputs, and remote sensing models to support risk-based planning and route optimisation, contributing to an estimated **£16 million in cost savings**.
- Developed and supported an **Asset Condition Geospatial Application** to survey Anglian Water assets across the region, enabling automated condition assessments and informed infrastructure decision-making.
- Designed and delivered the **BERA (Batch Enabling Risk Assessment) Application**, a spatial batch-processing tool enabling teams to rapidly assess multiple sites using location-based spatial datasets, **reducing manual assessment effort by several months**.
- Optimised the **GIME geospatial application** to support **ground investigations by automating engineering survey** workflows, significantly reducing task duplication and manual effort.

### GIS Specialist (Smart Waters)

Wessex Water, YTL, UK

Dec 2024

- Led initiatives to embed GIS-based database management into core workflows across the Environmental Solutions team (100+ staff), promoting **GIS awareness and adoption** across disciplines. Acted as a key liaison between technical and non-technical teams to translate complex geospatial data into actionable decisions with **ESRI tools**.
- Tailored GIS solutions for projects in **Land Entry, Ecology, Planning, & Environmental Investigations**.
- Developed **spatial digital workflows** with Python, ESRI tools, FME & SQL to support the deployment & management of approximately 2,000 sensors across 1,200 sites as part of the Section 82 CWQM program.
- Developed **GIS dashboards** using **Experience Builder, Image Server, Utility Network, Mobile Apps** --enabling spatial data visualisation, editing, analysis, and database management.
- Designed workflows with mobile apps **Survey123, & Field Maps** for the survey team to optimise data collection. Planned & processed **USV & UAV surveys (photogrammetry)** (Processing time reduced by 40%)
- Developed a workflow for designing and building a **360-degree viewer** for monitoring sites & assets. Cost reduced by GBP 20,000/Year
- Collaborated with cross-functional teams to integrate datasets, streamline reporting processes, **develop a project tracker**, & enable real-time water quality **data visualisation for public-facing dashboards**.
- Built **AI-powered bots** for spatial layer searches to enhance data visibility within the organisation; developing a Phase 1 tool for organisational geospatial data searches, with Phase 3 planned to incorporate basic spatial analysis.
- Upskilling multiple teams with GIS knowledge via hands-on training and workshops.
- Reviewed government policies and provided feedback as needed..
- **Integrated diverse data sources**—including the Land Registry, Ordnance Survey, Environment Agency (EA), CEH, various sensors, satellite and drone imagery, APIs, and field surveys—using ESRI tools and Python.

- Experience with various spatial database and data layer formats including PostGIS, GeoJSON, WMS, WFS, raster, and vector datasets & Enterprise services.

### **Geospatial Technician – Civil Servant, Land Mapping Team**

#### **Director-General Net Zero, Scottish Government**

Sept 2024 – Dec 2024

- Developed expertise in land mapping & case management using **bespoke GIS software LIPIS & aerial photography**.
- Conducted **habitat mapping** for biodiversity audits.
- Handled complex cases and **customer service enquiries**, ensuring efficient delivery of rural support services.
- Supported various government departments with spatial data visualisation and analysis.

### **GIS & Remote Sensing Expert - Network Planner:**

#### **Environmental Management & Planning Dept., AMN Ltd., Milton Keynes, England, UK**

Sept 2023 – Sept 2024

UK based AMN - builds, owns, operates and maintains mobile network infrastructure in Africa and Latin America.

- Led the design and deployment of **GIS-enabled planning systems** for mobile network expansion across Africa and Latin America—serving both internal stakeholders and underserved communities. Transformed company's manual planning into a comprehensive GIS-based planning system using, increasing efficiency by 25%. Conducted
- Optimised **spatial data management & analysis** processes by introducing efficient **ETL workflows** that reduced processing time by 75%. Delivered actionable insights through geospatial analysis.
- Collaborated with country managers and surveyors, enabling them to troubleshoot, adopt, and scale automated workflows using **Survey123** and ArcGIS tools. Delivered tailored **training programs** and hands-on support, to improve data accuracy.
- Contributed to **outreach and communications** efforts by producing accessible dashboards that helped illustrate impact in underserved communities.
- Managed the **Master Database** & introduced **quality control** measures, achieving 95% error-free GIS datasets.

### **Assistant Professor of Geography:**

#### **PES's Modern College of Arts, Science, and Commerce College, Pune, India**

Jul 2019 - May 2022

- Delivered 21 hours of **weekly lectures** on Geography, Cartography, Environment, GIS and Remote Sensing.
- Led **student-driven geospatial initiatives** in collaboration with NGOs and civic groups, using open-source tools.
- Designed and implemented experiential learning modules that integrated classroom teaching with community mapping activities—training students in the use of tools like **QGIS**, Bhuvan Panchayat, and India-WRIS to collect, visualise, and analyse spatial data while contributing to local development goals and **national open data missions**.

### **LEADERSHIP**

- A member of the U.S. Department of State's Young South Asian Leaders Initiative (YSALI) 2024
- Founder President of an NGO --YOU Foundation, India (2015–2021)
- Volunteer: Arcata Marsh Interpretive Center, CA, USA (2015 - 2015)

### **RESEARCH PUBLICATION**

- Assessing Peat Surface Motion & Carbon flux in The Great Fen Area of Cambridgeshire, UK using InSAR (in collaboration with *Cranfield University & University of Nottingham*)

2025

### **EDUCATION**

#### **Data-driven approaches to hydrological science, UKCEH Summer School**

2025

- trained in sourcing, analysing, modelling, and visualising hydrological and environmental data with Python libraries.

#### **MSc Advanced GIS & Remote Sensing, Cranfield University, U.K. (merit)**

2022 - 2023

#### **MSc Geography, Lovely Professional University, Punjab, India**

2017 - 2019

CGPA: 8.46/10 (*University Academic Honor for standing first in order of merit*)

#### **Bachelor in Geography, Mumbai University, India**

2012 - 2016

CGPA: 6.68/7 with a Fully Funded Academic Year, at **Humboldt State University, California, USA**

### **CERTIFICATION**

- Generative AI Mastermind by Outskill Aug 2025
- FME (Feature Manipulation Engine) Essentials by Udemy July 2025
- Agile Foundations – IIBA & PMI May 2025
- AutoCAD Map 3D Essential Training Jun 2025

**Also Exploring mountains, forests, —and how AI and ML might someday navigate them better than I do**

