

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 ETL workflows using tools & scripts (including Satellites, UAV & USV). Known for taking ownership of complex challenges and delivering practical, effective solutions. Supporting businesses by integrating geospatial workflow 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 (Chartership by April 2026)
- 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 | Anglian Water, UK

Oct 2025 – Present

- Actively promoted GIS across the organisation by engaging with stakeholders, understanding operational workflows, and identifying opportunities for geospatial innovation and process improvement.
- Exploring GeoParquet and PostgreSQL for efficient handling of large geospatial datasets.
- Collab with Innovation Team: Developed a geospatial Suitability Model and workflow to identify waterlogged areas and optimise pipeline routing using spatial data and remote sensing, helping address approximately £6M in losses caused by waterlogging. Presented the model at TAP.
- Collab with Solutions Team: Developing an **Asset Condition geospatial application** using the Esri suite and 360-degree imagery (photo + videos) to survey Alliance assets across the region, enabling automated condition assessments and informed infrastructure decision-making.
- Collab with Environmental Team: Designed and delivered the **BERA (Batch Enabling Risk Assessment)** Application, a spatial batch-processing tool with **FME and Python**, enabling environmental teams to rapidly assess hundreds of sites using location-based spatial datasets, each with different spatial conditions, reducing manual assessment effort by several months.
- Collab with Civil Egg.: Optimised the **GIME** geospatial application to support **ground investigations by automating engineering survey** workflows, significantly reducing task duplication, manual effort, and data accuracy (with external gps-esri integration).
- Implemented an **ERA** workaround with **python for constraint mapping** to address an Esri bug affecting existing tools.
- Collab Planning Team: Delivered 3D visualisations and geospatial insights to support infrastructure planning and decision-making

GIS Specialist (Smart Waters)

Wessex Water, YTL, UK

Dec 2024 – Oct 2025

- 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.

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%.
- 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**.
- 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
- Volunteer: Arcata Marsh Interpretive Center, CA, USA (2015 - 2015)

RESEARCH PUBLICATION

- Assessing peat surface motion using Interferometric Synthetic Aperture Radar (InSAR) in the Great Fen area of Cambridgeshire, UK (in collaboration with Cranfield University & University of Nottingham) 2026

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.

2022 - 2023

Group Project: Soil Sampling Techniques from an Uncrewed Aerial System with **Surveyar Ltd.**

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

- Scrum Master Certification by Knowledge Academy Jan 2026
- 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