

ABHIK NASKAR

Geospatial Developer | Analytics & Strategy

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PROFESSIONAL SUMMARY

GIS professional with 1.5+ years of experience architecting end-to-end spatial solutions across disaster management, urban planning, and environmental monitoring. Delivered geospatial projects spanning 5+ countries, managed spatial databases exceeding 10M+ records, and secured government and academic partnerships across Eastern and North Eastern India. Combines deep technical proficiency in remote sensing, spatial databases, and web GIS with proven business development capabilities.

CORE COMPETENCIES

GIS & Remote Sensing | Spatial Database Management | Web GIS Development | Geospatial Data Science | Machine Learning for LULC | Business Development | Client Engagement | Geospatial Training & Curriculum Design

TECHNICAL SKILLS

GIS & Mapping: ArcGIS Pro, ArcGIS Online, ArcGIS Map, QGIS, ERDAS IMAGINE, ESA SNAP, Google Earth Engine, Drone2Map, Survey123, QField, GeoServer, Leaflet, Mapbox API

Programming: Python, JavaScript, Node.js(basic), HTML, CSS

Databases: PostgreSQL / PostGIS, Neo4j

Visualization: ArcGIS Dashboard, Power BI, QGIS2Web, Python Dash

Business Development: CRM Systems, Technical Proposals, Market Research, Client Engagement, Training Curriculum Design

PROFESSIONAL EXPERIENCE

Business Development Executive | *Avakaza Geoscience Research Technologies* | Bangalore, KA, Mar 2025 – Present

- Spearhead business development initiatives targeting 40+ government agencies and universities across Eastern and North Eastern India, contributing to ~28% growth in client pipeline within the first year.
- Conduct market research across urban analytics, forestry, and drone mapping sectors, identifying 15+ viable project opportunities per quarter.
- Design and deliver geospatial training curriculum for university partnerships & AGSRT's training covering automation, programming, and spatial database management; onboarded 3 institutional clients to date.
- Develop custom geospatial dashboards as GIS Developer, reducing client reporting turnaround by an estimated 40% through workflow automation.
- Manage a CRM pipeline of 3+ active leads, tracking conversion metrics and delivering technical presentations to C-suite and government stakeholders.

GIS Cartographer | *NielsenIQ* | Vadodara, GJ, Jul 2024 – Jan 2025

- Engineered high-quality cartographic outputs for 5 multi-country projects spanning Romania, Uzbekistan, Thailand, Tanzania, and India, meeting 100% of delivery deadlines.
- Created and maintained Primary and Secondary Sampling Unit (PSU/SSU) spatial datasets supporting statistical sampling methodologies across diverse regional geographies.
- Established rigorous QA/QC protocols that reduced rework rates by ~25%, ensuring compliance with international project specifications.
- Collaborated across time zones with international teams to deliver spatial data products consistently on schedule.

Engineering Intern – Data Science & GIS | *Xpressbees* | Pune, MH, Feb 2024 – Jul 2024

- Analysed and transformed 10M+ GPS trajectory records from logistics operations using Python (Pandas, NumPy), optimising route efficiency and cutting processing time by 35%.
- Engineered automated data-cleaning pipelines that reduced manual intervention by 80% and standardised address parsing across 500K+ unstructured delivery records.
- Administered enterprise PostgreSQL/PostGIS spatial database; query optimisation efforts improved geospatial retrieval speeds by ~50%.

- Leveraged Neo4j graph database for last-mile delivery network analysis, uncovering 12+ route optimisation opportunities across key delivery corridors.

Remote Sensing & Environmental GIS Intern | *IIST Shibpur* | Howrah, WB, Mar 2023 – May 2023

- Conducted soil moisture estimation research using Sentinel-1 SAR data, applying radiometric calibration and Lee speckle filtering within ESA SNAP to produce spatially consistent moisture maps.
- Achieved >85% accuracy in satellite-derived soil moisture estimates validated against in-situ field measurements, demonstrating applicability for precision agriculture decision-support.

KEY PROJECTS & ACHIEVEMENTS

Ward-Level Flood Evacuation Advisory System — *Kolkata Municipal Corporation (prototype)*

- Architected an end-to-end operational web dashboard (Node.js + PostgreSQL backend) integrating real-time GPM rainfall data and Sentinel-1 SAR flood extents, achieving a 90-minute advisory response latency.
- Developed a citizen geo-reporting app and implemented a composite vulnerability-scoring algorithm with mathematically weighted inputs, automating evacuation advisories across 144 municipal wards.
- Deployed GeoServer + Leaflet API for real-time map visualisation with a duty-officer sign-off mechanism ensuring fully auditable decision-making.

Advanced Flood Hazard Mapping — *Kamrup Metropolitan District (Academic Project)*

- Built a multi-temporal Sentinel-1 SAR flood-mapping framework in Google Earth Engine, refining classification accuracy using Sentinel-2 NDWI/MNDWI/SWIR indices.
- Performed socio-spatial analysis using nighttime lights, settlement expansion data, and census layers to quantify population displacement across flood-affected zones.

ML-Based Land Cover Classification — *Tokyo, Japan (Academic Project)*

- Benchmarked Decision Tree, Random Forest, and SVM algorithms for LULC classification; Random Forest achieved highest overall accuracy at 91.4%, outperforming baseline by 8 percentage points.

Asset Mapping of Symbiosis Lavale Campus Using Drone Data — *Academic Project*

- Generated sub-5 cm accuracy orthomosaics, DSMs, and 3-D point clouds from UAV imagery via Drone2Map; digitised 200+ campus assets (buildings, roads, vegetation, infrastructure) in ArcGIS.

Land Subsidence Monitoring – Underground Coal Mining — *Paschim Bardhaman (Academic Project)*

- Detected and mapped ground displacement using Sentinel-1 InSAR interferometry, identifying subsidence hotspots of up to 12 cm displacement to support regional risk assessment and planning.

Urban Encroachment Analysis — *Eastern Kolkata Wetlands (Academic Project)*

- Quantified ~18% wetland shrinkage over a 15-year period using multi-temporal imagery and MOLUSCE plugin; modelled future land-cover transitions to inform conservation policy.

Forest Cover Change & Climatic Variability — *Western Ghats (Academic Project)*

- Investigated forest cover dynamics and wildland fire frequency (2001–2015), correlating long-term climate drivers with spatial fire patterns across multiple landscape scales.

EDUCATION

M.Sc. in Geoinformatics Aug 2022 – Jun 2024

Symbiosis Institute of Geoinformatics, Pune

B.Sc. (Hons.) in Geography Jul 2019 – Jun 2022

Vidyasagar Metropolitan College, University of Calcutta, Kolkata

CERTIFICATIONS & TRAINING

- Diploma in Remote Sensing, GIS & GNSS – Computer and Skill India Development Mission (CSIDM), 2022
- NASA Applied Remote Sensing Training – Mangroves, Urban Heat Islands & Black Marble Night Lights, 2020
- Value-Added Certificate in Drone Technology & Symposium on Drones in Geospatial Applications, 2023

ADDITIONAL INFORMATION

Languages: English · Hindi · Bengali