GIS Analyst

Location: Chandigarh or Kanpur
(*If based in Kanpur, travel to Chandigarh for approximately one week per month will be required.*)
Reports to: Manager, Data & Strategy

The **Airawat Research Foundation (ARF)** was established as the National AI Centre of Excellence (CoE) for Sustainable Cities under the Ministry of Education, Government of India. Conceived as a forward-looking initiative, ARF is built on the belief that AI and data-driven innovation can fundamentally transform how Indian cities are designed, governed, and sustained.

ARF operates as a collaborative platform bringing together leading academic institutions, government bodies, and industry partners to advance **r**esearch, experimentation, and deployment of AI solutions for urban transformation. The foundation focuses on critical domains including clean air, energy, urban mobility, digital governance, and waste management, developing practical tools and frameworks that enable cities to become more resilient, efficient, and citizen-centric.

ARF's work bridges the gap between policy and technology, creating an ecosystem where data scientists, city administrators, and innovators can co-develop responsible AI models and systems aligned with India's goals of sustainable and inclusive urban growth.

If you are passionate about using cutting-edge technology to solve real urban challenges, the Airawat Research Foundation offers a unique opportunity to shape the future of Indian cities. By joining ARF, you will work at the intersection of AI, governance, and sustainability contributing to pioneering research, transformative public-sector projects, and policy innovations that will influence how India's cities evolve over the next two decades

Roles and Responsibilities

- Ingest, manage, and maintain geospatial datasets including building footprints, land parcels, land use layers, road networks, and administrative boundaries from multiple government sources.
- Perform spatial data cleaning and validation including topology checks, geometry correction, coordinate system standardization, and spatial accuracy assessment.
- Conduct spatial joins, overlays, buffering, and proximity analysis to support urban analytics and AI use cases.
- Compare and reconcile spatial datasets from multiple sources, such as building footprints or parcel boundaries, and document discrepancies and confidence levels.
- Geocode addresses and link spatial layers with non-spatial administrative datasets in collaboration with data analysts.
- Produce spatial analysis outputs, thematic maps, and visualizations for dashboards, reports, and stakeholder presentations.

- Support GIS-driven use cases such as encroachment detection, infrastructure coverage analysis, service accessibility studies, and urban growth monitoring.
- Document spatial data lineage, metadata standards, assumptions, and known limitations of geospatial datasets.
- Ensure adherence to spatial data governance practices including version control, access permissions, and privacy considerations for location-linked data.
- Assist pilot deployments by validating spatial outputs, monitoring spatial model performance, and refining spatial logic based on field feedback.

Requirements

- 2-3 years of experience in GIS analysis or geospatial data handling.
- Strong proficiency with QGIS and common geospatial data formats.
- Experience working with spatial databases and GIS-enabled analytics workflows.
- Ability to clearly communicate spatial insights to non-technical stakeholders.
- Strong attention to data accuracy, documentation, and reproducibility.