

GAJENDRA MALIK

Senior GIS Engineer — LiDAR Scan-to-BIM Specialist — 3D Spatial Data Expert
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Professional Summary

Senior GIS & BIM Engineer with 12+ years of international experience delivering high-accuracy geospatial, LiDAR, and Scan-to-BIM solutions for infrastructure, urban planning, transportation, environmental, and architectural projects. Expert in LiDAR point cloud processing (LAS, LAZ, E57), remote sensing, photogrammetry, and GIS-BIM integration. Proven ability to transform raw laser scan and aerial data into DEM, DSM, DTM, 3D city models, and as-built BIM models. Advanced user of ArcGIS Pro, QGIS, Autodesk Revit, Python automation, and spatial databases, with strong QA/QC rigor and cross-functional collaboration skills.

Core Skills

- LiDAR Processing & Classification
- Scan-to-BIM & Reality Capture
- Point Cloud Processing (LAS, LAZ, E57)
- Remote Sensing & Photogrammetry
- UAV & Aerial Mapping
- DEM / DSM / DTM Generation
- 3D Modeling & 3D City Models
- GIS-BIM Integration
- Spatial Analysis & Geoprocessing
- Python Automation (ArcPy, GeoPandas)
- ETL Workflows & Data Pipelines
- Spatial Databases (PostGIS, FileGDB)
- QA/QC & Accuracy Validation
- Cartography & Map Production

Tools & Technologies

- GIS: ArcGIS Pro, ArcGIS Online, ArcGIS Enterprise, QGIS
- LiDAR: LAStools, CloudCompare
- BIM & 3D: Autodesk Revit, Scan-to-BIM Plugins (nCircle Tech)
- Remote Sensing: UAV Mapping, Aerial & Satellite Imagery
- Programming: Python, ArcPy, GeoPandas
- Databases: PostGIS, FileGDB
- Cloud Platforms: AWS, Azure
- Version Control: GitHub, GitLab

Professional Experience

Senior BIM Engineer

Weaverbird Engineering & Technology Pvt. Ltd., India

Jan 2025 – Present

- Lead Scan-to-BIM and reality capture workflows, integrating high-density LiDAR point clouds into Revit.
- Convert E57, LAS, and LAZ datasets into accurate as-built BIM models for renovation and retrofit projects.
- Utilize nCircle Tech Importer/Exporter for Revit to manage large point cloud datasets efficiently.
- Perform clash detection, QA/QC, and accuracy tolerance validation against real-world geometry.
- Collaborate with architectural, structural, and engineering teams to ensure constructability and model reliability.
- Aerial imagery, orthomosaics, and LiDAR-derived point clouds deliver high-accuracy exterior measurements, generating 3D models that capture roofs, walls, doors, windows, fences, and pools, enabling complete, measurable property views for engineering, planning, and insurance-grade analysis.

Geographic Information Systems Analyst

Tomkulak Consortium, France

Apr 2024 – Jan 2025

- Delivered GIS solutions supporting flood resilience, environmental analysis, and urban planning.
- Developed terrain models and flood simulations using LiDAR-derived DEMs and spatial analysis.
- Applied ArcGIS Pro and CityEngine workflows to test drainage improvements and design scenarios.
- Translated complex spatial data into actionable insights for planners, engineers, and decision-makers.

Senior GIS Engineer

Weaverbird Engineering & Technology Pvt. Ltd., India

Jan 2018 – Jan 2024

- Processed UAV, aerial imagery, and LiDAR data to generate orthomosaics, DEMs, DSMs, contours, and 3D surfaces.
- Classified LiDAR point clouds using LAStools and ArcGIS to produce terrain models and 3D city models.
- Built and maintained spatial databases (PostGIS, FileGDB) with strict QA/QC standards.
- Automated geoprocessing workflows using Python, ArcPy, GeoPandas, improving efficiency and accuracy.
- Delivered high-precision roof, wall, and structural measurements for architectural and engineering design.
- Produced cartographic outputs, technical documentation, and metadata.

Junior GIS Engineer

TriCAD Design Consultants Pvt. Ltd., India

Jan 2016 – Dec 2017

- Supported GIS data processing, spatial analysis, and map production.
- Assisted with satellite imagery and LiDAR data interpretation for infrastructure projects.

Additional Professional Experience

Office Administrative Assistant

Hero MotoCorp, India

Jan 2012 – Dec 2015

- Managed administrative documentation, records, and internal reporting systems.
- Performed data entry, validation, and quality checks with high accuracy.
- Coordinated schedules, documentation workflows, and inter-department communication.
- Maintained confidentiality and compliance with organizational standards.

Banking & Finance Operator

State Bank of India, India

Jan 2011 – Dec 2013

- Processed financial transactions and account documentation in compliance with banking regulations.
- Conducted data verification, reconciliation, and quality assurance checks.
- Supported operational reporting and record management systems.

Education

Diploma in Civil Engineering

2023–2025

Soro School of Engineering

Bachelor of Arts – Environmental Science & Managerial Economics

2008–2011

Fakir Mohan University, Odisha

Languages

English (Fluent)

Hindi (Fluent)

French (Basic)