SAMUEL BAHAGO GABRIEL

GIS ANALYST | REMOTE SENSING | SPATIAL MODELLING | WEBGIS

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PROFESSIONAL SUMMARY

GIS Analyst and geoscience professional with seven years of experience applying GIS and remote sensing to water resources, flood risk, catchment management and environmental planning. Delivered spatial analysis for ACReSAL and other government-backed projects, including 20 strategic catchment management plans across Northern Nigeria. Combines Python-based spatial modelling, machine learning and interactive WebGIS with field and satellite evidence to produce decision-ready maps and planning tools.

CORE EXPERTISE

GIS & Spatial Data	ArcGIS Pro; QGIS; geodatabase management; cartography; spatial QA/QC; georeferencing and field-data integration.
Remote Sensing	Google Earth Engine; Sentinel-1/2; Landsat; DEM analysis; land-cover classification; NDVI; change detection.
Hydrology & Environment	Watershed delineation; drainage and flood mapping; erosion/RUSLE; groundwater screening; climate analysis; HEC-RAS/HEC-HMS support.
Spatial Modelling & Automation	Python; ArcPy; scikit-learn; Random Forest; spatial cross-validation; multi-criteria analysis; automated GIS workflows.
WebGIS & Decision Support	MapLibre; interactive geospatial dashboards; evidence atlases; spatial filtering; map-based analysis and GIS data export.

PROFESSIONAL EXPERIENCE

GIS Analyst — MECON Geology and Engineering Services | ***2024–Present***

Jos, Plateau State, Nigeria

- Deliver GIS and remote-sensing analysis for government-supported water-resource, infrastructure, climate-resilience and environmental projects.
- Integrate DEMs, imagery, hydrometeorological records, survey observations and stakeholder evidence into standardized geodatabases and decision-ready maps.
- Produce catchment, flood, erosion, land-cover, groundwater and terrain assessments; support field engagements, technical reports and multidisciplinary engineering work.

Groundwater Site Geologist — JustFixIt Synergy Ltd | ***2023–2024***

Abuja, Nigeria

- Supported groundwater investigations through geological field observations and interpretation of spatial and available geophysical evidence; prepared borehole-siting maps and site records.

GIS Analyst — Geodiscovery Nigeria Ltd | ***2019–2023***

Remote / Minna, Niger State, Nigeria

- Digitized, georeferenced, interpreted and analysed geological and environmental datasets; delivered GIS maps and remote-sensing products for project teams.

SELECTED PROFESSIONAL ASSIGNMENTS

Strategic Catchment Management Plans — 20 Northern Nigerian Catchments | ***2024–2026***

ACReSAL Federal Project Management Unit | MECON Services Ltd

- Delineated 20 strategic catchments across 19 Northern States and the FCT; standardized hydrology, terrain, land cover and risk mapping, and incorporated stakeholder evidence into the spatial foundation for 20 management plans.

Three Earth Dams and Irrigation Schemes — Adamawa State | ***2024–2025***

Adamawa State ACReSAL | Timdore, Guyaku and Wuro-Gayandi

- Mapped dam sites, catchments, reservoir footprints, drainage and irrigation command areas; contributed terrain and survey-derived spatial inputs to engineering studies.

Kwara Baseline Survey and Environmental Mapping | *2025*

Kwara State ACReSAL | Asadam, Lata and Share

- Integrated field GIS, satellite imagery, 1995–2025 land-cover change, multi-year NDVI, terrain and climate evidence into technical-report outputs.

Other projects: Plateau ACReSAL flood-risk and mining-impact studies; NIHSA Wamakko water-resources assessment.

INDEPENDENT GEOSPATIAL RESEARCH & INTERACTIVE PLATFORMS

Lokoja Flood Risk and Resilience Planning | *2026*

Lead GIS and machine-learning analyst | bahagogabriel.com/projects/lokoja-flood-resilience.html

- Built Sentinel-1 flood inventories, 17-predictor spatial ML models, spatial/chronological validation, exposure analysis and an interactive planning dashboard; mean spatial PR-AUC: 0.813.

Anambra Soil-Erosion Prioritization | *2026*

Lead researcher and dashboard developer | bahagogabriel.com/projects/anambra-soil-erosion-prioritization.html

- Combined erosion-screening and drainage-connectivity evidence to identify 441 relative-priority planning zones across 21 LGAs; published an interactive dashboard and conservation scenarios.

Niger Delta Gas-Flaring Evidence Atlas | *2026*

Lead researcher and atlas developer | bahagogabriel.com/projects/niger-delta-gas-flaring-evidence-atlas.html

- Analysed 2012–2025 satellite-estimated activity at 372 confirmed onshore flare locations and screened 75 sites for further reduction-feasibility investigation; published maps and a WebGIS atlas.

Bayelsa Oil-Spill Evidence Atlas | *2026*

Lead researcher and atlas developer | bahagogabriel.com/projects/bayelsa-oil-spill-evidence-atlas.html

- Reconciled 3,109 historical documented incident records (2006–2018), analysed spatial recurrence and published an interactive, source-qualified evidence atlas.

ADDITIONAL PLATFORM-DEVELOPMENT WORK

Basin Nexus NG: interactive catchment and stakeholder-evidence atlas covering 20 strategic catchments; source-linked records, geographic filters and map QA workflows. PetroScreen NG: browser-based preliminary petroleum environmental desk-screening application supporting multi-site comparisons, spatial buffers and GIS exports.

EDUCATION

2024 | Diploma in Project, Quality, Safety, Environment, Risk and Sustainability Management — QHSES Leadership Academy

2023 | Bachelor of Technology, Geology — Federal University of Technology Minna

2016 | National Diploma, Mineral Resources Engineering — Petroleum Training Institute, Warri

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

Data Science — TS Academy | October 2026. Completed a three-month training programme.

Esri: Going Places with Spatial Analysis (2024); GIS for Climate Action (2023). Coursera: GIS data acquisition, map design, spatial analysis, satellite imagery and GIS fundamentals (2020). Central University of Karnataka: QGIS Certification Course (2020).

MEMBERSHIPS & LANGUAGES

Nigerian Association of Petroleum Explorationists (NAPE); Nigerian Society of Physical Sciences (NSPS). Languages: English, Hausa and Numana.