DERRICK KOOME

WebGIS Developer | Geospatial Engineer

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PROFESSIONAL SUMMARY

- Geospatial Engineer and WebGIS Developer with 8+ years of experience delivering enterprise GIS and WebGIS platforms for government, humanitarian, and infrastructure projects across East Africa.

- Expert in PostGIS, Leaflet, Python, and ArcGIS; builds scalable spatial systems supporting 20,000+ records and thousands of daily map interactions.

- Blend of field surveying leadership and full-stack GIS development, translating raw spatial data into actionable dashboards and decision tools.

- Co-written an industry book on geospatial projects published by Taylor and Francis and available on Amazon.

WORK EXPERIENCE

2016–Present   Owner / Projects Lead   Cheswick Surveys   Nairobi(Kenya)

- Led 25+ surveying and GIS projects including UAV mapping of 3+ km² sites, producing orthomosaics and DEMs used for engineering design and approvals.

- Designed and deployed spatial databases improving land record retrieval time by ~60%.

- Delivered software solutions and technical training to 40+ surveyors and engineers.

2021 - 2025   GIS & Land Survey Consultant   SETAC Engineering

Mogadishu,Juba (Somalia, South-Sudan)

- Executed topographic surveys for FAO, UNICEF, and EU projects across 4 countries supporting irrigation, facilities, and coastal protection works.

- Produced engineering drawings and GIS layers used directly for rehabilitation of 100+ km of canals and public infrastructure.

- Managed field teams of up to 10 staff while maintaining on-time delivery in remote environments.

2017 - 2021   Co-Founder   Corsmap   Nairobi(Kenya)

- Architected a continental WebGIS portal mapping 250+ CORS stations across 28 African countries.

- Built backend PostgreSQL/PostGIS database and interactive dashboards, reducing station discovery time from hours to seconds.

- Supported researchers, surveyors, and GNSS providers with centralized real-time metadata access.

2014 - 2015   Survey Party Chief   Nile Surveys & Geo-solutions   Nairobi(Kenya)

- Supervised crews for large-scale cadastral and settlement surveys covering thousands of hectares for UNHCR and government programs.

- Delivered accurate control and topographic data that informed land allocation and infrastructure layout.

SELECTED PROJECTS

- Groundwater WebGIS Portal: Built full-stack platform managing 21,000+ well records with CRUD editing, clustering, dashboards, and spatial analytics using Leaflet + PostGIS; supports national SDG-6 monitoring.

- Geospatial Analytics (Python): Processed 200+ years of climate and global COVID datasets; produced automated choropleths, heatmaps, and time-series visualizations.

- Urban Density Mapping: Developed hex-grid and animated maps with Turf.js and ArcGIS SDK for large city datasets.

RELEVANT SKILLS

- Languages: Python, JavaScript, PHP, SQL, HTML/CSS, jQuery, AJAX

- GIS & Web Mapping: PostGIS, Leaflet, QGIS, ArcGIS Pro/Online, Turf.js, ArcGIS Maps SDK

- Data & Analytics: GeoPandas, Pandas, Plotly, Folium, Jupyter

- Tools: Pix4D, Git, VS Code, PyCharm

- Soft skills: Prolific writer and co-author, confident speaker, team player, good negotiator

EDUCATION

2013	*Degree*	*The University of Nairobi (Nairobi, Kenya)*
	BSc. Geospatial Engineering	

PROFESSIONAL CERTIFICATIONS

2022 - Remote Pilot License (UAV) – Kenya Civil Aviation Authority

2024 - Geospatial Analysis – Kaggle

2024 - Spatial Analysis and Geospatial Data Science in Python - Udemy

2024 - Google Earth Engine for Machine Learning and Change Detection – Udemy

2024 - Spatial Data Science; The New Frontier in Analytics – Esri

2024 - Make an Impact with Modern GeoApps (ArcGIS Storymaps, Experience builder, Dashboards and InstantApps) – Esri

2025 - Web GIS: From Beginner to Advanced – Udemy