

PHILIP NYAKWAKA

 www.philipnyakwaka.tech |  github.com/philipnyakwaka1 |  linkedin.com/in/philip-nyakwaka-30881b213/

ABOUT ME

Geospatial engineer with 2 years of experience building analytics-driven spatial systems and automation pipelines. Proficient in Python-based geoprocessing, API integrations, and PostGIS-backed spatial databases. Experienced in developing scalable, backend-integrated GIS applications and cloud-enabled mapping workflows.

SKILLS

Programming & Backend: Python, JavaScript, C, SQL, Django, REST API development, Git/GitHub, Linux administration

Geospatial & Spatial Data Engineering: PostGIS, ArcGIS (Pro & Online), QGIS, Google Earth Engine, Google Maps API, Azure Maps API, spatial ETL, geocoding, spatial analysis automation

Data & Applied Domains: Remote sensing, geocomputation, cartographic design, hydroclimatology, agricultural analytics, cloud GIS

RELEVANT EXPERIENCE

Geospatial Intelligence Intern 01/05/2024 – 25/09/2024
Safaricom PLC Nairobi, Kenya

- Integrated Google Maps API for distance and terrain modeling to support site visit budget optimization and resource allocation planning.
- Designed geocoding workflows using Google Maps and Azure Maps APIs to map network infrastructure (agents, dealers, retail shops).
- Developed a custom API service to automate map data extraction and improve spatial data accessibility.
- Supported market expansion analysis by combining revenue metrics with spatial modeling to guide store placement strategy.

GIS & Remote Sensing Intern 10/10/2023 – 20/12/2023
Esri Eastern Africa Nairobi, Kenya

- Built Python automation scripts in ArcGIS Pro (ModelBuilder + arcpy) to optimize spatial analysis workflows and geodatabase management.
- Designed operational dashboards for real-time geospatial data visualization to support infrastructure planning.
- Contributed to public works projects by integrating ArcGIS Online and Desktop tools to streamline asset inspection and reporting pipelines.

EDUCATION

Yildiz Technical University Istanbul, Türkiye
Master of Science in Geomatics Engineering 2025 – Present
Course Work: GIS Algorithms and Programming, Machine Learning, Spatial Databases

University of Nairobi Nairobi, Kenya
Bachelor of Science in Geospatial Engineering 2017 – 2022
First Class Honors
Thesis: Use of Geospatial Technologies in Mapping Underground Water Potential Zones

CERTIFICATIONS AND AWARDS

ALX Software Engineering Program

Holberton School | Feb 2023 – June 2024