Wycliff Kimutai

Full Stack Developer

✉ kimutaiwycliff90@gmail.com 📞 +254716522948 📍 Nairobi, Kenya 🔗 Portfolio

PROFILE

Innovative full-stack and GIS developer with 5+ years of experience building scalable web and geospatial applications. I began my journey in 2019 through geospatial data analysis and quality control, later advancing to full-stack development with a focus on intuitive, high-performance solutions. At Konza Silicon Company, I led the development of GIS applications leveraging technologies like PyQT, Next.js, TypeScript, Golang, AWS, and Terraform. I'm passionate about applying my skills in Python, JavaScript/TypeScript, and cloud platforms (AWS, Azure) to building robust data systems and interfaces for resource-constrained environments. Outside work, I enjoy automating workflows, contributing to open-source projects, and time with family.

EDUCATION

M.Sc. Data Analytics   01/2022 – 07/2025
KCA University   Nairobi, Kenya

B.Sc. Geomatics Engineering and Geospatial Information Systems   09/2015 – 04/2021
Jomo Kenyatta University of Agriculture and Technology   Juja, Kenya
Grade: First Class Honours

CCNA Routing and Switching   07/2017 – 01/2018
Cisco Networking Academy

PROFESSIONAL EXPERIENCE

Senior GIS Desktop Developer & Front-End Developer   09/2022 – present
Konza Silicon Company Limited   Nairobi, Kenya
(Ardhisasa Project)

- *Front-End Developer (09/2023 – present)*
  - Developed interactive web applications using TypeScript and Angular, emphasizing performance and scalability.
  - Implemented responsive designs to ensure seamless experiences across devices.
  - Collaborated with backend teams to integrate RESTful APIs.
  - Designed and developed user interfaces for various web applications.
  - Ensured responsive design and cross-browser compatibility for all web applications.
  - Implemented best practices in UI/UX to enhance user experience.
- *Senior GIS Desktop Developer (09/2022 – present)*
  - Designed and maintain the official Ardhisasa QGIS plugin used by State Department of Lands staff surveyors for land parcel management.
  - Built automated data cleaning workflows (Python + PostgreSQL) that process 10,000+ parcel records daily.
  - Configured GeoServer cluster with PostGIS backend serving vector and raster layers with sub-second response times
  - Managed, maintained, and rendered spatial data using Geoserver and POSTGIS.
  - Developed React-based admin portal with role-based access control for county land offices
  - Developed web maps for data visualizations using folium and dash libraries.

Geospatial Engineer   02/2022 – 09/2022
Bell Power International   Nairobi, Kenya

- Built web application with NextJS to visualize and analyze solar/wind potential across the sites.
- Created automated data validation pipelines that improved dataset consistency for critical energy projects.
- Collected, managed, and analyzed spatial data to support project planning and monitoring.
- Utilized GIS to assess the environmental impact of proposed energy projects.
- Developed interactive dashboards (Plotly Dash, Leaflet.js) used by 20+ field teams to monitor project progress in near-real-time.

- Implemented GIS solutions to optimize the planning and management of energy infrastructure.

Lead Surveyor
KAAD, Somalia

07/2021 – 02/2022
Puntland, Somalia

Project: Garaad-Galkayo-Tuurdibi road project. (309Kms)
- Successfully conducted topographic surveys and design reviews for highway construction.
- Established control points and benchmarks for accurate road construction using static survey techniques.
- Successfully mapped and analyzed terrain to identify potential challenges and opportunities.
- Ensured alignment with project timelines and milestones through efficient survey planning and execution.
- Implemented precise land surveys to establish boundaries and right-of-way considerations.
- Developed comprehensive survey reports to guide decision-making in the early stages of the road project.

PROJECTS

Virtual reference station (VRS) in Kenya
University Final Year Project

07/2020 – 12/2020

- Investigated and reported on the performance of the Kenyan VRS concept as an extension of the GPS Real-Time-Kinematic (RTK) survey technique to provide reliable information on accuracy, precision, and reliability.
- Assessed the reliability of the Muya VRS network through detailed testing of accuracy, precision, initialization times, and coverage extent. Collected and processed multiple measurements from test sites within, on, and outside the network.
- Demonstrated that the Muya VRS system is at least comparable to classic RTK in accuracy, precision, and initialization times, with greater robustness in coverage extents.
- Provided valuable insights for existing and potential GPS users, aiding informed decision-making in positioning activities.

SKILLS

Geospatial Tools
Esri ArcGIS, ArcGIS Pro, QGIS, Mapbox, GDAL, GeoServer, Google Earth Engine, MapServer

Programming Languages
Python, JavaScript, TypeScript, Rust, SQL, Go

Cloud & DevOps
Docker, CI/CD, cloud deployment on AWS, Azure, Kubernetes, Terraform, Ansible

API Integration
RESTful services, GraphQL, Websockets, GeoJSON, KML, Shapefiles

Web Development
HTML, CSS, React, React Native, Typescript, Node.js, Esri JavaScript API, Leaflet.js, Nextjs, Angular, Remix, Tailwind, Shadcn, Acerternity, React Query, Redux

Database Management
PostgreSQL/PostGIS, Oracle Spatial, SQL Server, MongoDb

Surveying
Engineering Surveys, GPS RTK and Static Survey

Soft
Time management, Communication, Adaptability, Attention to detail, Teamwork, Problem-solving

CERTIFICATES

- Foundations of Project Management ✎
- Spatial Data Science: The New Frontier in Analytics ✎
- Tools for Data Science ✎
- Going Places with Spatial Analysis ✎
- Introduction to Data Science in Python ✎
- Cartography ✎
- Python for Data Science, AI & Development ✎
- Project Initiation: Starting a Successful Project ✎

LANGUAGES

English ● ● ● ● ●   Swahili ● ● ● ● ●

French ● ● ○ ○ ○

REFERENCES

Mr. Joshua Mwaura, *Managing Director*, Openmaps Limited, Kenya
openmaps14@gmail.com, +254 739 186580

Dr. Victor K. Boiyo, *Deputy Vice Chancellor*, USIU
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Mr. Jeffrey Mwai, *Technical Lead*, Konza Silicon Company Limited
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