

THERESA NYATICHİ MONARI

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SKILLS

Technical Skills: ESRI ArcGIS Products | QGIS | Python | GDAL Library | Pandas | Geopandas | Leafmap | Matplotlib | Folium | Leaflet | Rasterio | Geemap | Xarray | Rioxarray | Whitebox | Maplibre | Google Earth Pro | Git & GitHub | JupyterLab | PostgreSQL | PostGIS | Google Colab | MS Visual Studio | RTK | Total Station | Civil 3D | HTML | CSS | Microsoft Office.

Professional Skills: Data analytics | Scientific Research | Accountability | Analytical Thinking | Team Player | Effective Communication | Adaptive and Flexible | Responsible | Trustworthy | Problem-solving | Innovative | Responsive Web Design.

EDUCATION

The Technical University of Kenya, Nairobi, Kenya

Sep 2018 - Dec 2023

- Bachelor of Technology in Surveying Technology
- Second Class Honors, Upper Division
- WES Evaluated GPA: 3.47/4.00

PROJECTS/RESEARCH EXPERIENCE

Research Project

Sep 2022 – Mar 2023

- **A GIS Application in Competency-Based Curriculum Schools Distribution Mapping and Proposing Future Secondary Schools Locations: Case Study of Makadara Sub-County.**
- **Project Report Paper**
- **Advisor: Mr. Tom Mumo – Department of Geomatics and Land Management, TUK**
 - I carried out independent research in GIS in partial fulfillment of my Bachelor's degree.
 - I utilized ArcGIS Pro, QGIS, Microsoft Excel, Word, and PowerPoint for data analysis, project report/results presentation, and visualization.
 - I successfully did the oral presentation of the project results to a panel of professors.

WORK EXPERIENCE

Kenya National Highways Authority (KENHA)

Nairobi, Kenya

Geographic Information Systems Intern

Feb 2024 – Present

- Geospatial data collection: Road projects fieldwork member for geospatial data collection using RTK, topographic surveying, setting out, road reserve marking, levelling, referencing, cadastral surveying, and static surveying.
- Mapping and visualizing traffic patterns, road network statistics, and possible road maintenance and construction locations using ArcGIS Products, Civil 3D, and QGIS software.
- Digitize the old topographic maps using ESRI ArcGIS Products and QGIS.
- Spatial database management of KeNHA's GIS Portal database.
- Providing geospatial information to infrastructure development and maintenance engineers.

Kenya National Highways Authority (KENHA)

Nairobi, Kenya

Land Surveyor (Attachment)

Jan 2023 – Mar 2023

- Geospatial Data Collection: Road projects fieldwork member, Civil 3D mapping, road reserve marking, levelling, referencing, cadastral surveying, static surveying, and topographic surveying.
- Data visualization using ArcGIS Desktop, Civil 3D, and QGIS software.
- Digitize the old topographic maps using ESRI ArcGIS Products and QGIS.
- Setting out road infrastructure such as footbridges and drainage culverts.

OTHER COURSES/CERTIFICATIONS

- **University of Tennessee, Knoxville:** Geographic Software Design: Jan 2025 – May 2025
Open Geospatial Solutions by Dr. Qiusheng Wu (GitHub).
- **Fundamentals of Remote Sensing:** The NASA Applied Remote Sensing Training Mar 2025
(ARSET) Program.
- **University of Toronto:** Spatial Analysis and Satellite Imagery in a GIS (Coursera). Mar 2025
- **Austin Community College:** GISC 2420 Intermediate GIS. Jan 2025
- **Alison:** Diploma in Remote Sensing - A Theoretical Approach (Online). Feb 2025
- **University of Tennessee, Knoxville:** Intro to GIS Programming: Sep 2024 – Dec 2024
Open Geospatial Solutions by Dr. Qiusheng Wu (GitHub).
- **GEO University:** Introduction to Remote Sensing (Online). Aug 2024
- **FreeCodeCamp.** Responsive Web Design. Jun 2024
- **SheCodes:** SheCodes Basics (HTML/CSS/ JavaScript) Mar 2024
- **ESRI MOOC:**
 - Spatial Data Science: The New Frontier in Analytics. Oct 2024
 - Make an Impact with Modern Geo Apps. Oct 2024
 - Transform AEC Projects with GIS and BIM. Oct 2022
 - Imagery in Action. Jun 2022
 - Going Places with Spatial Analysis. May 2022
 - Getting Started with Data Management. Mar 2022
 - Cartography. Mar 2022
 - GIS Basics. Mar 2022

PROFESSIONAL MEMBERSHIP

The Institution of Surveyors of Kenya (ISK)

Aug 2022 - Current

ISK Membership No: 5418