KOFI OHEMENG NTIKORAH

Geospatial Product Data Analyst

Accra

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A geospatial data scientist with a strong data management technique. Armed in QGIS, python and R for spatial analysis and workflow automation. I generate insights for industry decisions; real estate, transportation, agriculture. I promote company net ratio and be of value wherever I find myself. I work remotely or on-site and equally love hybrid.

Work Experience

GIS Analyst
Walulel - Accra
May 2018 to Present

• Build models and develop python scripts within QGIS to automate spatial metric analysis workflow. Models and python scripts analyse metrics such as air quality, conservation areas , urban islands, schools, opportunity areas, house price, transport, congestion charge zones. These metrics are analysed timely to be embedded on WaInsight, a real estate location intelligent software platform for London.
• Strategise data scraping and retrieval of open source data to be used for policy planning analysis for London. Connections to WMS, WMTS, WFS, WCS, REST API, https protocols data are deciphered and obtained with scripts in R. geojsonsf. Consideration to connections to storing images in bytea in PostgreSQL via POSTgis is given to raster layers which require processing to vectors.
• Set up and refine a spatial data pipeline which automates spatial metric analysis in the area of demographics, built environment, amenities using drake, an R studio workflow library. Proximity analysis, network analysis, geolocation analysis are some analysis done with sf, sp, ppp packages in R studio. Data stored on the cloud is analysed swiftly and CSV results churned out upon button click.
• Collaborate with developers, UI/UX designers by ensuring features for web and mobile versions of applications are developed. Features such as geolocation grid to track user behaviour, proximity analysis to define customer radius have been implemented and are continually updated to meet the needs of the user.
• Prepare technical documents on application reviews and clearly bring to the fore spatial strategies which address user needs.
• Classify buildings by architecture, use and style by digitising buildings using QGIS and google maps.
• Liaised with Jas Bhalla Architects to prepare heatmaps for affordable housing designs. Jas Bhalla Architects and Walulel won the 2019 William Sutton Prize.
• Built a database of digitised road classes built from scratch for London with cycle routes which informs users on link -node ratio, classes of roads.

Data Analyst and Regression Expert
Freelance
March 2022 to July 2022

• Consult on using R studio for data analysis and econometrics with focus on building regression models with graphs and interpretations.

• Tutor spatial analysis with R, QGIS and python using real world scenarios. Addressed concerns and intensified trainee's urge on the power of spatial analysis in decision making.
• Introduce trainee to the power of data visualisations in decison making by giving considerations to Tableau, plotly, seaborn, geojsonio, matplotlib and QGIS.
• Offer pro-bono services on geospatial analysis---satellite imagery analysis, machine learning, map composition.
• Develop location-aware apps with geodjango and django.

Geospatial data sourcing expert and Analyst
Freelancer
June 2021 to August 2021

• Sourced geospatial data in the area of built environment, demographics, amenities which can be used to build a location intelligent platform. I ensured that data sourced were accurate and to the right standard when used for spatial analysis
• Validated data offerings from mobility data providers using spatial analysis in QGIS and R . Meetings were scheduled with providers, data needs were presented and feedbacks were documented accordingly. This ensured data offerings were understood and reviewed.
• A report of data needs, consideration and recommendations was presented. This report served as a guide for development of a location intelligent product.

Python GIS developer/Machine Learning
Freelancer
June 2021 to August 2021

• I tutored on using QGIS and machine learning with focus on applying algorithms to detect weeds in a plantation. This was achieved by building a detection algorithm using dzetsaka and semi-automatic classification plugin incorporating random forest, SVM and GMM models.
• Aided trainee in setting up a git hub page website and pages to visualise web map composed in QGIS.
• Introduced trainee to anaconda, jupyter notebook and python libraries such as open cv, tensor flow, geopandas. A detection model was developed to detect weeds in a plantation.

GIS Data Scientist
Safegraph
July 2021 to July 2021

• Evaluated places data by bringing context to advertisement and understanding navigation of customers.

• Spatial analysis and data science were applied to contextualize navigation and advertisement. A report which makes a robust places data for sampled Safegraph places for Canada, US and Britain was presented.

Cartographer, Data Visualisation expert
Freelancer
January 2020 to May 2021

• As a cartographer, I have composed static maps which depict study areas. Some of these maps show forest reserves, wetlands, settlements. Geoprocessing algorithms were applied to present fine visualisations. https://github.com/kof1nti/nearest
• Web map of a suburb in Ghana showing 100m grids has been visualised to provide insight into geolocation. https://kof1nti.github.io/numero.github.io/#12/5.6833/0.0118

• Web map showing planning policy of Greater London has been visualised. This map provides meaning into urban planning. https://kof1nti.github.io/webpolicy/

Surveyor
Joeamah Geomatic Consult - Accra
June 2017 to August 2017

• As part of an asset mapping project of the Electricity Company of Ghana, I mapped metred and non-metred assets including houses, electric poles.
• With the aid of an automatic level, total station and drones, setting out surveys and detailing were done for a section of Ridge Hospital as part of a phase two project. In the end a misclose and an accuracy were achieved.
• Ground truthing a part in Accra was done to ensure map produced was accurate. Omissions and errors were duly noted and applied.

Surveyor and CAD expert
Survey and Mapping Division
May 2015 to August 2015

• Prepared new site plans for land owners. This was done to ensure owners had the updated site plans in lieu of old ones. Auto cad was used in preparing site plans.
• Demarcated plots of lands.
• Prepared and compiled survey reports to be signed by Regional Surveyors. I ensured checks were done and corrected of errors.

Education

BSc in Geomatic Engineering
KNUST - Ashanti Region
August 2014 to May 2018

Skills

• ArcGIS, QGIS,R, PYTHON, POSTGRESQL, GITHUB, GOOGLE EARTH,REMOTE SENSING, EXCEL, PowerBI, Tableau, Geoda,Photomodeller,AWS,MACHINE LEARNING, data science,data scraping, data collection, data analytics, data analysis, data modelling, data processing, product evaluation, data visualisation, writing, research, product management, slack, click up, microsoft teams (4 years)

Languages

• English - Fluent
• French - Beginner
• Twi - Fluent

Certifications and Licenses

Going places with spatial analysis
January 2019 to March 2019

Issued by ESRI by attending the MOOC