Joseph Gyegyiri

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OBJECTIVE

Aspiring Geospatial Analyst/Developer with a proven track record of problem-solving and critical thinking skills with leadership experience, seeking to leverage gained knowledge and skillsets to boost productivity.

EDUCATION

Meta Back-End Developer – Coursera Online Professional Course   July 2023 - December 2023 (Expected)

Master of Science (M.S.) - Civil Engineering (Transportation/Geomatics Concentration)   January 2023 - **May 2024** (Expected)

Florida Atlantic University, Boca Raton, Florida   GPA: 4.00 / 4.00

Bachelor of Science (B.S.) - Geomatics Engineering   September 2016 - August 2020

Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.   GPA: 3.65/4.00

EXPERIENCE

Graduate Research Assistant, **Florida Atlantic University** | Boca Raton, Florida   January 2023 - Present

- Developed an innovative approach that integrates GIS with hydrologic modeling to predict potential flood areas in Florida, based on FEMA methods.
- Conducted geospatial research and created high-quality maps, enhancing my lab's capabilities in flood risk assessment.
- Leveraged high computation and regression analysis to model groundwater behavior, which significantly improved the accuracy of flood risk predictions.
- Created Python automation codes (model builder & tool development) which reduced the geoprocessing time by 50%.
- Produced a comprehensive flood risk reports, effectively presenting the project's findings to stakeholders.

Land Surveyor, **Denys Engineers** | Accra, Ghana   November 2022 - January 2023

- Spearheaded the creation of a highly accurate DEM for underground pipe installation using drone and survey-grade GPS.
- Designed accurate road alignments and profiles by utilizing GPS data in AutoCAD.
- Established Ground Control Points (GCPs) for all survey activities, facilitating consistent and precise data collection.

Graduate Trainee, AngloGold Ashanti Iduapriem Limited | Tarkwa, Ghana   September 2020 - August 2021

- Utilized Surpac, Civil 3D, and Datamine software to design mine ramps, drill and blast layouts, and calculate material volume from mining operations, resulting in significant operational improvements.
- Skillfully conducted ore mark-out surveys, pit surveys, and contributed to boundary and farm demarcation, enhancing the efficiency and accuracy of mining operations.
- Employed UAV technology to document internal and external engineering projects faster, demonstrating adaptability and embracing modern surveying techniques that saves both engineers and surveyor's time and money by 30%.
- Effectively used project management tools to control 60% of all GIS works within the Mining Department (coordinate systems transformation, spatial data processing and analysis, data management, geodatabase creation, digitization of maps, and others).
- Collaborated with other departments such as geoscience, engineering, and sustainability as a way of building strong team work.

SKILLS

Programming:	Python, SQL, MATLAB, HTML, JavaScript, CSS.
GIS:	ESRI (ArcMap, ArcGIS Pro, ArcGIS Online, Experience Builder & Dashboard), QGIS, Leaflet, PostGIS.
AI & Analytics:	Data analysis, Data Visualization (both 2D/3D), Statistical analysis, mapping techniques (cartography)
Data Collection:	Total Station, levelling instrument, all GPS types, UAV, Laser scanners, boundary analysis
Data Processing:	CAD (AutoCAD & Civil 3d), Pix4d mapper, Trimble business center, Microsoft Word, Microsoft Excel.
Others	Excellent written and verbal communication skills, attention to detail, Multi-tasking.

PROJECTS

Storm Watershed Master Plan (ArcGIS Story Map) – Click here to access the app.

- Developed an ArcGIS story map showing the progress of my graduate research duties at the Center for Water Resiliency and Risk Reduction at Florida Atlantic University. This project shows a clear structure of storm water modeling for predicting the flood inundation possibilities in Marco Island based on selected scenarios using FEMA approved methods.

ArcGIS Dashboard of Electric Vehicle Charging Stations in US – Click here to access the app.

- Designed and developed an interactive and comprehensive dashboard of Level 2 electric vehicle charging stations in the US which can save users 50% less time when searching for nearby stations.

Designed and developed an interactive web map showing free Wi-Fi locations, bus stops, and bus routes in Palm Beach County using open source mapping (leaflet) and hosted on GitHub.- Click here to access map.

PUBLICATIONS & PRESENTATIONS

Presentation: Using deep learning to automatically detect building damage from high resolution remotely sensed images.

Presented my work at the South Florida GIS Expo (August 2023). Details here

AWARDS & CERTIFICATES

United States Geospatial Intelligence Foundation Scholarship.   August 2023

Leidos Scholarship for AI/ML Advancement. Details here

Google Data Analytics Professional Certificate Details here   October 2023

EXTRA CURRICULAR ACTIVITIES

Vice President, American Water Work Association, FAU student chapter   September 2023 – Present

Volunteering with Open Street Humanitarian Mapping team in Ghana   January 2022 - Present

PROFESSIONAL MEMBERSHIP

- USGIF - ESRI YPN   - ITE (student member) – FSMS (student member) – AWWA