

## SELASSIE ADIWOKOR KWABENA

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### Skills

- Geographic Information System Developer
- Coding - Python, PHP, Java, HTML5, Javascript, CSS3, Database (MySQL/MariaDB, PostgreSQL/PostGIS, MSSQL)
- Software – ArcGIS, QGIS, AutoCAD, Erdas Imagine, Pix4D, Agisoft PhotoScan, Petrel, Microsoft Office (Word, Excel Powerpoint, Visio, Project)
- Drones flight & processing (Aibotix X6, WingtraOne, Sensefly Ebee Plus)

### Relevant Experience

#### **Survey Party Chief**

***N.L. Olson & Associates Inc, WA, USA***

***March 2019 – till Date***

- Build a Web Application to serve as a repository for all CONTROL POINTS created in the field for each job
- Use GPS (SP80 – Spectra Precision) and Total Station (Spectra Precision Focus 35 Robotic) to conduct Boundary Surveys, Topographic Survey, ALTA's, BLA, Construction Staking, Monitoring, just to mention a few
- Maintained legible and representative field notes of survey work performed
- Observed proper care and handling of surveying equipment

#### **GIS Project Lead**

***Hexagon Geosystems-PDSA, Ghana***

***August 2017 – Sept 2018***

- Played a role in Drone flight using WingtraOne and Ebee Plus around Kwabenya ECG boundary. Post Processing Kinematics (PPK) was done with a Leica G20 reference station to ensure 0.2cm accuracy of the geotagged images. Processing of data using Agisoft Photoscan to form orthomosaic map of the whole boundary need for the G/Electric solution.

#### **GIS Developer**

***Henson Geodata Technologies, Ghana***

***Jun 2012 - Dec 2016***

- Played team roles in turn-key projects where Python, ArcGIS / Excel scripts were used for data trimming, validation and transformation (such as from one Coordinate System to another).
- Integrating datasets; Digitizing features from raster images, transforming and integrating with vector features of different epochs for map preparation and cartographic visualization.
- Performed geospatial analyses like Interpolation, measurement, and running validation queries, resolving feature intersection conflicts on local GIS datasets and remote PostgreSQL/PostGIS server.
- Develop location based service web and mobile applications using PHP, Java, Javascript, Python (Mamsys App, Locsmman App, FPA)

### Projects

#### ***N.L. Olson and Associates Surveying Projects (March 2019 – Till Date)***

- ✓ **SurveyBM** This is a web application developed to extract and store all SURVEY CONTROL POINTS used by Party Chief in the field. The backend was developed using PYTHON FLASK framework and Postgresql database. The front end was developed using JavaScript with JQuery and Leaflet framework as well as HTML5 and CSS3. Basic functionality of the application is to recognize and extract CONTROL POINTS from a text file and store them in a Database for future reference and download. The application equally enables companies to define their CODE LIST (abbreviation between Party Chief and DRAFTERS with which the point data is stored).

Reference video: (<https://drive.google.com/file/d/1lo0Kt-cdRmfzOGWZMQp69UpHI7lNcJjt/view?usp=sharing>)

- ✓ **Redbarn** Plat development in Silverdale. Provided Clearing Limit and construction staking (Storms, Sewer, Bio-retention cells, road centerline, curbs, pond, property corners just to mention a few) using Total Station (Spectra Precision Focus 35), GPS (Spectra Precision SP80) and Ranger 7 data collector running surveyPro. Setting all plat Monuments.
- ✓ **Teragon Topo** in Silverdale. Mapping 8 acres property by running traversing with Spectra Focus 35. Capturing features such as Utility poles, existing gas markers, catch basins ponds (top and toe) gravel roads, walkways. Dipping all storms (Catch Basins), retaining walls just to mention a few. Tying the map to section corners
- **Hexagon Geosystem-PDSA Data Validation (Sep 2017 – SEP 2018)**
  - ✓ Project managed all GIS related projects in the company. Worked with Hexagon Geosystem/Intergraph

division from Germany to provided G/Technology solution to Ghana's Electricity Company of Ghana (E.C.G). Training of ECG staff on how to use the G/Technology solution (G/Administrator, G/Designer, GT Viewer).

✓ Provision of GIS solution to Ghana's Accra Metropolitan Assembly (A.M.A), Ga Central Municipal Assembly (G.C.M.A) are equally few of the project I managed.

✓ Drone Piloting (Aibotix X6, Sensefly Ebee Plus, WingtraOne) to generate orthomosaic of areas using Pix4D/Agisoft Photoscan.

- **FPA, Mamsys App, Locsmman App, CLIGIS - Henson Geodata Tech (Jun 2012 – Dec 2016)**

✓ FPA - is an android application develop to aid in emergency response to Fire Service, Police service and Ambulance service. Clicking on a Button enable users GPS location to be sent to these departments (Fire, Police, Ambulance) for an emergency response.

✓ Mamsys - is a web portal that enable the tracking of vehicles. This was design for owners of fleets of vehicles enabling them to halt the vehicle in case of theft. I played an essential role in building the web application using (HTML5, CSS3, PHP, SQL-Postgresql)

✓ Locsmman App – I developed an android application using Java/XML. Locsmman was design for the mapping of point of interests (banks, ATM locations, etc). The application was connected to a Postgresql database system.

✓ Developed the mobile component of the CLIGIS system this was to help navigate to the locations of clients

## **Education**

### **MS Geospatial Technologies**

**University of Washington, WA**

**Sept 2020 - August 2021**

- RELEVANT COURSES: Introduction to Geospatial Technology, Web-Based GIS, GIS Customization and Automation, Mobile Geospatial Application Development, Planning and Design, Cartography and Data Visualization, Environmental Planning application

### **MS Petroleum Geoscience (Geophysics)**

**University of Ghana, Legon**

**August 2014 - July 2015**

- RELEVANT COURSES: Reservoir Characterization and Modeling, Sedimentary Basin and Tectonics, Seismic and Sequence Stratigraphy, Petrophysics (Well logging), Seismic Reflection Acquisition & Processing, Seismic Interpretation, Petroleum Geology, Economics and Legal framework of the Petroleum Industry, Health, Safety and Environment.

### **BS Geomatics Engineering**

**Kwame Nkrumah University, Kumasi-Ghana**

**Sept 2008 - August 2012**

- GPA: 3.43 / 4.0 (Upper Second-Class HONS)
- RELEVANT COURSES: Geographic Information System, Remote Sensing, Geodesy and Global Positioning System, Introduction to computer programming, Database Management System (MSSQL/MySQL/Postgresql), Soil and rock mechanics, Transportation Engineering

## **Certificate**

- Introduction to GIS/ G/Technology – Initial GIS Training I1
- G/Technology Design & Data Model – Initial GIS Training I2
- Certified Aibotix X6 drone pilot