Adeline Akansobe

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106 Woodland Street, Worcester MA 01610 USA

EDUCATION

Master of Science in Geographic Information Science and Remote Sensing Worcester, MA - USA
Clark University, IDCE August, 2022 – May, 2024

Commonwealth Executive Master of Business Administration (HR) Kumasi, Ghana
Kwame Nkrumah University of Science and Technology, School of Business August, 2017 – March, 2021

Bachelor of Science in Mining Engineering (Second class honors) Tarkwa, Ghana
University of Mines & Technology August, 2009 – June, 2013

PROFESSIONAL EXPERIENCE

GIS Research Assistant British Columbia, Canada
University of Victoria-BC, Economics November, 2023 – August, 2024

- Mapped and analyzed forest loss in Rwanda which SSHRC, Canada will use in partnership with the University of Victoria-BC to assess the relationship between forest loss and the decade-long Cookstove policy.
- Performed accuracy assessment or validation (QA/QC) of the landcover maps generated for time interval 2013-2023.

MS GIS Student Worcester, MA - USA
Clark University, IDCE August, 2022 – May, 2024

- Mapped, measured, and analyzed the intensity of mining activities in southwestern Ghana, and designed a story map on ArcGIS Online to visualize results.
- Managed, created, and analyzed landcover change within Blackstone Watershed in Worcester and Rhode Island using a relational database SQL software (PostgreSQL).
- Geocoded and performed emerging hot spot spatial analysis of Drug violations between 2011-2019 in Worcester, MA.
- Analyzed and developed a minimal exposure modeling route in ArcGIS pro for transporting hazardous material from Pantego, Texas to Concord, Massachusetts, and Ann Arbor, Michigan to Barnwell, South Carolina.
- Simulated Alternations of Temporary crops in Western Bahia-Brazil.
- Collated and created an interactive web mapping application (Leaflet) to visualize the population density of Baja California.
- Mapped flood areas in Plum Island – MA (FEMA RiskMAP Zones A, AE, X) using Sentinel-1 SAR data and created an interactive web mapping application, the Google Earth Engine App.
- Processed drone imagery for corn fields in Northborough-MA using Pix4D and eMotion 3 software, and performed geospatial analysis with the processed aerial photography.
- Employed a pre-trained Remote Sensing Transformer (Presto), a transformer-based model pre-trained on remote sensing pixel-time-series data for the downstream task of mapping agricultural fields in Germany.
- Mapped rooftop photovoltaic panels, generated Digital Elevation Models (DSM) from Lidar datasets, analyzed and assessed the suitability of building rooftops for installation in Worcester, MA, prepared a technical report, and presented findings in a collaborative environment.
- Mapped and utilized communication software (ArcGIS dashboard) to communicate Environmental Equity in Allegheny County by race and poverty.
- Generated Flood risk map and conducted hydrologic analysis of Cuyahoga County in Ohio in ArcGIS Pro.

Mining Engineer (Ventilation) Accra, Ghana
Golden Star Wassa Limited October, 2016 – November, 2020

- Collated and maintained all ventilation and environmental monitoring databases for ventilation and Mine planning.
- Designed efficient Primary and auxiliary ventilation systems from collected GPS ventilation data, As-Built of Mine drives, ventilation surveyed volumes that provided quality air for underground workers, improved Mine production, and protected the environment and catchment communities.
- Determined and evaluated Life of Mine (LOM) ventilation designs and advised on key mining connections and required infrastructure upgrades.
- Prepared all monthly, quarterly, and yearly statutory ventilation, Mine, electrical & pumping utilities, and engineering maps in CAD software (AutoCAD) and ensured compliance with Ghana's mining and minerals regulations.

- Collaborated with the Mine Planning Superintendent to prepare yearly ventilation mining plans and budgets for the mine.
- Developed, implemented, and maintained Safe Operating Procedures (SOPs) for ventilation data collection and spatial management, trained and mentored new mining graduates and new employees.

Mining Administrative Technician   Accra, Ghana
Golden Star Wassa Limited   October, 2015 – October, 2016
- Prepared and updated at least 5 underground mine and 4 ventilation maps monthly using AutoCAD and Surpac.
- Assisted mine planning engineers in designing and preparing mining and blasting plans for the production team.
- Liaised with Geomatic engineers to reconcile mined material to end-of-month surveyed volumes.
- Prepared and ensured all underground mining and engineering permits, plans and reports were presented per Ghana's mining and minerals regulations.

Assistant Safety/ Emergency Response Officer   Accra, Ghana
Golden Star Wassa Limited   September, 2014 - September, 2015
- Trained employees in Health and safety procedures, Firefighting, and workplace safety.
- Assisted in developing, implementing, maintaining, and training mining Safe Operating Procedures (SOPs) for ventilation data collection and spatial management.
- Assessed, managed, rescued, and provided first aid treatment to victims during emergencies.

Graduate Mining Engineer   Accra, Ghana
Golden Star Wassa Limited   October, 2013 – August, 2014
- Collated and reported daily, weekly, and monthly production statistics to the team.
- Assisted mine surveyors in collecting geospatial data on mining areas, blasted materials, and setting out points for development drilling faces using Leica RTK and handheld GPS.
- Assisted in monthly stockpile and waste dumps survey pick-ups.
- Mapped and sampled rock structures to update Golden Star's geotechnical database.

PUBLICATIONS AND CONFERENCE PRESENTATION
- **Akansobe, A,** Bilintoh, T. M., Opuni, A. & Korah, A. (2024). Mapping and measuring the intensities of mining activities in Southwestern Ghana, 2024 American Association of Geographers, Honolulu, USA.
- Bilintoh, T. M., Korah, A., Opuni, A., & **Akansobe, A.** (2023). Comparing the Trajectory of Urban Impervious Surface in Two Cities: The Case of Accra and Kumasi, Ghana. *Land*, *12*(4), 927. https://doi.org/10.3390/land12040927
- Bilintoh, T. M., Ishola, J. I., & **Akansobe, A.** (2022). Deploying the Total Operating Characteristic to Assess the Relationship between Land Cover Change and Land Surface Temperature in Abeokuta South, Nigeria. Land, 11(10). https://doi.org/10.3390/land11101830
- Prosser, B. S., Wallace, K. G., Redden, R. and **Akansobe, A.** (2019), Ventilation System Design for Wassa underground Mine, 17th North American Mine Ventilation Symposium, Montreal, Canada.

TECHNICAL SKILLS AND COMPETENCIES
- Software: Esri ArcGIS/ ArcGIS Pro/ ArcGIS Online, QGIS, Python, R, Google Earth Engine, AutoCAD, PowerBI, Visual studio code, HTML, PostgreSQL, TerrSet, Draft Sight, Microsoft Office
- Soft skills: Detail-oriented, Organized, Multitasking, Team player
- Languages: English, Frafra, Twi

PROFESSIONAL CERTIFICATES AND RECOGNITION
- ESRI's Certificate for Getting Started with the Geodatabase, January 2023.
- ESRI's Certificate for Getting Started with Geodatabase Topology, February 2023.
- Certificate of Competency in Explosive handling and usage (My Blast Number: 10728)
- 2014 National Winners – National Inter Mine Safety Competition from Minerals Commission (MINCOM)
- 2014 Zonal Winners – Inter Mine Zonal Safety Competition from Minerals

LEADERSHIP
- **Women's Commissioner** - University of Mines and Technology Catholic Students Chapter June, 2011 – June, 2012
- **Lead the Ventilation Section**   Oct. 2016 – Nov. 2021