


# Bright Aboh

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 VP 0013-5919, Kpando - Volta region, Ghana.

## Education and Training

- 2017 - 2019 Master of Science in Mathematical Sciences, African Institute for Mathematical Sciences - Senegal.
- Modules :** Big data, computer programming, statistics with r, statistics and probability, mathematical problem solving, graph theory and applications.
- Thesis :** Social network analysis for churn prediction.
- Final Grade :** Good Pass (Above 80%).
- 2011 - 2015 Bachelor of Science in Financial Mathematics, University for Development Studies - Ghana.
- Modules :** Mathematical modeling and application, statistics, differential equations, time series and forecasting, economics, applied mathematics, research methods.
- Project :** Modeling the effects of capital market on the Ghanaian economy using regression analysis.
- Final Grade :** Second Upper (4.22/5).

## Professional Experience

- September 2021**  
**Present**
- Ishango AI Fellow, African Institute for Mathematical Sciences, Kigali, Rwanda.**
- > Identifying tobacco fields using machine learning and remote sensing
  - > Estimating tobacco yields using machine learning .
- Remote sensing Machine learning Spatial analysis
- April 2021**  
**August 2021**
- Data Science Fellow, Ghana Statistical Service, Accra, Ghana.**
- > Building of dashboards to monitor Ghana Population and Housing Census data.
  - > Displaying important geospatial and logistical information on census roll-out.
  - > Pre-processing and data visualization of census data.
  - > Training of Data Science Trainees of the Ghana Statistical Service.
- Population and Housing Census Data Data Visualization Data analysis
- November 2020**  
**Present**
- Reviewer, Telematics and Informatics Journal (Elsevier), an Interdisciplinary Journal on the Social Impacts of New Technologies, Remote.**
- > Providing written constructive feedback on articles submitted.
  - > Recommending on the acceptance or rejection of articles reviewed.
  - > Determining the scientific merits of the articles.
- November 2020**  
**April 2021**
- Research intern, Integrated Digital Monitoring and Management of Air Pollution, AIMS - DIDA, Kigali, Rwanda.**
- > Defining a methodological framework for modeling air pollution in Sub-Saharan Africa cities.
  - > Holding regular meetings with Imperial College and Universities Space Research Association on data analytics and methodologies.
  - > Analyzing satellite imagery
  - > Organising a workshop in collaboration with the University of Ghana, Imperial College, and AIMS on monitoring needs.
- Digital surveillance Air quality modeling Data analysis
- June 2019**  
**September 2020**
- Machine Learning and Climate Change research intern, Rwanda Environment Management Authority, Kigali, Rwanda.**
- > Set up and managed database.
  - > Collected and analysed satellite data.
  - > Analyzed air quality data for health recommendations.
  - > Implemented Machine Learning models for land use classification.
  - > Visualized and communicated results.
- Google Earth Engine Python Collect Earth QGIS PostgreSQL SQLite Anaconda

May 2018 November 2018	<b>Data Scientist, Orange Telecommunication, Dakar - Senegal.</b> <ul style="list-style-type: none"> <li>&gt; Analyzed and constructed social network of subscribers.</li> <li>&gt; Developed a hybrid machine learning model to predict multi-SIM owners.</li> </ul> <span>Scala</span> <span>Python</span> <span>Neo4j</span>
September 2017 May 2018	<b>Community Service, AIMS, Mbour - Senegal.</b> <ul style="list-style-type: none"> <li>&gt; Swept and cleaned Mbour beach.</li> <li>&gt; Visited, interacted and clean the Pepiniere de Mbour orphanage</li> <li>&gt; Cleaned AIMS center</li> </ul>
October 2016 March 2017	<b>Volunteer Mathematics Tutor, Adaklu Senior High School, Ho, Ghana.</b> <ul style="list-style-type: none"> <li>&gt; Taught core and elective mathematics.</li> <li>&gt; Coordinated sport and entertainment activities</li> <li>&gt; Appraised students.</li> <li>&gt; Proctored student.</li> </ul> <span>Teacher's guide</span> <span>Mathematics syllabus</span>
September 2015 August 2016	<b>Mathematics Tutor, Adaklu Senior High School, Ho, Ghana.</b> <ul style="list-style-type: none"> <li>&gt; Taught core and elective mathematics.</li> <li>&gt; Coordinated sport and entertainment activities.</li> <li>&gt; Appraised students.</li> <li>&gt; Proctored students.</li> </ul> <span>Teacher's guide</span> <span>Mathematics syllabus</span>

## Competencies

<b>Programming Language</b>	Python, R, SQL, Scala.
<b>Big Data Frameworks</b>	Spark, Hadoop, Hive.
<b>Databases</b>	MySQL, PostgreSQL, Neo4j (Graph Database).
<b>Development tools</b>	IntelliJ Idea, Pycharm, Eclipse, Git, Anaconda.
<b>Operating Systems</b>	Mac OS X, Windows Server, Windows OS, Unix.
<b>Others</b>	SPSS, QGIS, Power BI Cloud Computing, machine learning modelling, statistical modelling,

## Languages

<b>English</b>	    
<b>Français</b>	    

## Conferences and Seminars

- > 2021 Attendee : Data needs for better policies on air pollution in Sub-Saharan Africa - Virtual.
- > 2020 Presenter (Talk title : Satellite imagery analysis for Land Use, Land Use Change and Forestry : A pilot study in Rwanda) (Presentation link) : Neural Information Processing Systems (NeurIPS) - Virtual .
- > 2020 Presenter (Talk title : Satellite imagery analysis for Land Use, Land Use Change and Forestry : A pilot study in Rwanda) (Presentation link) : ACM SIGCAS Conference on Computing and Sustainable Societies - Virtual.
- > 2020 Attendee : UNEP/UNDP Global Support Programme (GSP) : Mitigation Actions - Virtual.
- > 2019 Attendee : Data Science Africa Workshop - Ghana.
- > 2019 Attendee : Workshop on greenhouse estimation using Intergovernmental Panel on Climate Change (IPCC) software - Rwanda.
- > 2018 Attendee : Workshop with School on Stochastic Analysis, Financial and Insurance Mathematics - AIMS Ghana.
- > 2018 Attendee : Short courses on Applied mathematics - TU Chemnitz - Germany.

## Publications

### Satellite Imagery Analysis

2020

 <https://dl.acm.org/doi/pdf/10.1145/3378393.3402268>  [Presentation ACM 2020](#)

Satellite imagery analysis involved the collection of satellite imagery to classify and quantify various land forms and changes that occurs between them using machine learning.

JavaScript LaTeX Machine Learning

## Honors and Awards

- > Certificate from Udacity in Programming for Data Science (Non Degree Program).

- > UN FAO certificate in the use of Collect Earth.
- > Certificate from the Global Support Program (GSP) training for Rwanda experts in the preparation of UNFCCC report.
- > DAAD fully funded workshop in Applied Mathematics at TU Chemnitz, Germany.
- > African Institute for Mathematical Sciences fully funded Masters Scholarship, AIMS - Senegal.

## “ References

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