

CURRICULUM VITAE

BIO – DATA

Name Emmanuel Amoah Boakye (PhD)
E-Mail emmanuelamoah.boakye@uqat.ca / eaaboakye@yahoo.com
Location Ottawa, Canada

LANGUAGES

English – Writing, Reading & Speaking – Proficient user (Advanced)
French – Writing (Basic) & Reading/Speaking – Independent user (Intermediate)

SUMMARY

I am a Data Scientist with PhD in the Environmental Sciences, MSc in Geoinformation Science and Earth Observation and 5+ years of practical and research experience. I have strong skills in applying data analysis and machine learning algorithms to extract climatic and non-climatic information from big environmental data. My strength lies in my ability to bring together ideas from data science, geospatial technologies, and environmental modelling. I am seeking employment with an organization where I can utilize my knowledge and skills to enhance the wise use of environmental resources.

CERTIFICATION (NON-CREDIT)

- Programming with Python by Calcul Québec, Canada
- Version Control with Git by Calcul Québec, Canada
- Graphics Processing Unit with Python by Calcul Québec, Canada
- Vegetation mapping using google earth engine by German Aerospace Center

EDUCATION

- PhD Environmental Science - Université du Québec en Abitibi-Témiscamingue (Québec). 2017 – February, 2022. <https://www.uqat.ca/nouvelles-et-evenements/nouvelle/?id=1750#>
- West African Graduate Research Programme in Climate Change and Biodiversity. Félix Houphouët Boigny University (Cote d'Ivoire). 2013 – 2017.
- MSc Geo-Information Science and Earth Observation - Faculty of Geo-Information Science and Earth Observation (ITC), University of Twente (the Netherlands). 2009 – 2011.
- BSc Natural Resources Management – Kwame Nkrumah University of Science and Technology (Ghana). 2001 – 2005.

SELECTED WORK IN THE MEDIA

- Forests, natural allies in the fight against global warming (Les forêts, des alliées naturelles dans la lutte contre le réchauffement climatique)
<https://www.ledevoir.com/societe/environnement/698943/-ces-alliees-naturelles-dans-la-lutte-contre-le-rechauffement-climatique> (16 April 2022 Le Devoir)

PUBLICATIONS

- **Boakye, E.A.**, Houle, D., Bergeron, Y., Girardin, M.P. & Drobyshev, I. (2022). Insect defoliation modulates influence of climate on the growth of tree species in the boreal mixed forests of eastern Canada. *Ecology & Evolution* (12:3, <https://doi.org/10.1002/ece3.8656>).
- **Boakye, E.A.**, Bergeron, Y., Girardin, M.P., & Drobyshev, I. (2021). Contrasting growth response of jack pine and trembling aspen to climate warming in Quebec mixedwoods forests of eastern Canada since the early 20th century, *Journal of Geophysical Research: Biogeosciences*, 126, e2020JG005873, <https://doi.org/10.1029/2020JG005873>.
- Tetteh, E. N., Owusu Danquah, E., Abunyewa, A. A., Melenya Ocansey, C., **Boakye, E. A.**, Tuffour, H.O., Logah, V., Twum-Ampofo, K., Dzomeku, B.M., Yeboah, S. & Barnes, V. R. (2021). Plantain-Tree Rubber Intercropping Systems Improved Productivity in the Tropical Humid Zone of Ghana, West Africa. *International Journal of Agronomy*, Article ID 3240686 | <https://doi.org/10.1155/2021/3240686>.
- Bessah, E., **Boakye, E. A.**, Agodzo, S. K., Nyadzi, E., Larbi, I., & Awotwi, A. (2021). Increased seasonal rainfall in the twenty-first century over Ghana and its potential implications for agriculture productivity. *Environment, Development and Sustainability*, 1-24, <https://doi.org/10.1007/s10668-020-01171-5>.
- **Boakye, E. A.**, Gebrekirstos, A., Hyppolite, D. N., Barnes, V. R., Porembski, S., & Bräuning, A. (2019). Carbon isotopes of riparian forests trees in the savannas of the Volta sub-Basin of Ghana reveal contrasting responses to climatic and environmental variations. *Forests*, 10(3):251, <https://www.mdpi.com/1999-4907/10/3/251>.
- Bessah, E., Bala, A., Agodzo, S. K., Okhimamhe, A. A., **Boakye, E. A.**, Ibrahim, S. U. (2018). The impact of crop farmers' decisions on future land use, land cover changes in Kintampo North Municipality of Ghana. *International Journal of Climate Change Strategies and Management*, <https://www.emeraldinsight.com/doi/full/10.1108/IJCCSM-05-2017-0114>.
- **Boakye, E. A.**, Hyppolite, D. N., Barnes, V. R., Porembski, S. (2017). Importance of forest buffers for preserving soil carbon and nutrient stocks in farmed landscapes along two river sites in the savannas of the Volta basin, Ghana. *Arid Land Research and Management*, 31:2, 219-233, <http://www.tandfonline.com/doi/full/10.1080/15324982.2016.1276984>.
- **Boakye, E. A.**, Hyppolite, D. N., Barnes, V. R., Porembski, S., Thiel, M., Kouamé, F. N., Kone, D. (2016). Comparative analysis of woody composition of farmlands and forest reserve along Afram river in a tropical humid savanna of Ghana: Implications to climate change adaptation. *Innovation in Climate Change Adaptation*, Springer, Switzerland. pp. 195-209, http://link.springer.com/chapter/10.1007/978-3-319-25814-0_14.
- **Boakye, E. A.**, Gebrekirstos, A., Hyppolite, D. N., Barnes, V. R., Kouamé, F. N., Kone, D., Porembski, S., Bräuning, A. (2016). Influence of climatic factors on tree growth in riparian forests in the humid and dry savannas of the Volta basin, Ghana. *Trees - Structure and Function*, 30:1695–1709, <http://link.springer.com/article/10.1007/s00468-016-1401-x>.
- **Boakye, E. A.**, Hyppolite, D. N., Barnes, V. R., Porembski, S., Thiel, M., Kouamé, F. N., Kone, D. (2015). Threat of agricultural production on woody plant diversity in Tankwidi

riparian buffer in the Sudanian Savanna of Ghana. *International Journal of Biodiversity and Conservation*, 7:354-363,

http://www.academicjournals.org/article/article1438358299_Boakye%20et%20al.pdf.

- **Boakye, E. A.**, Gils, H. V., Osei, E. M. Jnr., Asare, V. N. A. (2012). Does forest restoration using taungya foster tree species diversity? A case of the Afram Headwaters Forest Reserve in Ghana. *African Journal of Ecology*, 50: 319-325, <http://onlinelibrary.wiley.com/doi/10.1111/j.1365-2028.2012.01329.x/abstract>.
- Abeney, E.A., Osei, J.W., Agyarko, T., Seidu, M., Darko, S., Kudom-Agyeman, A., Sam, B.K., Koomson, W., Nana Adu-Baah, A., **Boakye, E.A.** (2012). Forest and Plantation Management Certification Standards based on the Principles and Criteria the Forest Stewardship Council - FSC-STD-GHA-01-2012 Ghana Forest Stewardship Standard EN, <https://ic.fsc.org/download-box.2341.htm> / <https://ic.fsc.org/ghana.479.htm>.

JOB EXPERIENCES

- Independent Data Researcher – Canadian Wood Fibre Centre, Natural Resources Canada. Job description: data exploration, processing and statistical analyses.
- Programme Director – Working Group on Forest Certification, Ghana. Job description: coordination of multi-stakeholder processes for the development of Natural Forest and Plantation Management Standards in Ghana (Forest Stewardship Council, Programme for the Endorsement of Forest Certification), community geospatial mapping of deforestation and reforestation hotspots, fund raising etc.
- Lecturer - Kwame Nkrumah University of Science and Technology, Kumasi, Ghana.
- Local Expert – Copernicus Global Land Operations Project, Lot 1, CGLOP-1– Wageningen University, Department of Environmental Sciences (2016). Interpretation of reference land cover on sample sites in Africa. In the online document, Page 10, Table 1
http://pure.iiasa.ac.at/id/eprint/15544/1/manuscript_multi_purpose_validationdata_RSE_p_reprint.pdf
- Consultant - Accreditation Services International, Forest Stewardship Council (2014). Annual Surveillance Audit of FSC Controlled and Chain of Custody Audit for Suhuma Timber Company.
- Geographic Information System (GIS) Consultant – Ayum Forest Products Limited, Goaso-Mim, Naja David Veneer and Plywood Limited and AG Timber Limited (Timber Companies) (2011).
- Assistant Auditor - SMARTWOOD of the Rainforest Alliance, USA. Forest Stewardship Council Chain of Custody and Controlled Wood Certification Audit of Logs and Lumber Limited (Timber Company in Kumasi) and John Bitar Company Limited (Timber Company in Sehwi Wiawso), 2010.
- Teacher – Holy Gardens International School, Kumasi (2000-2001). My job entailed serving as class teacher in Science and Mathematics.