

Theophilus Aidoo

Scientific Researcher



Contact Info

-  Campus E 1.7, R 3.03
66123 Saarbruecken
-  +49 163 4899196
-  t.aidoo@cs.uni-saarland.de
-  theoaid.github.io/home/

Languages

- English - Native
- German – A2
- French - Basic

Personal Info

Nationality: Ghananian

Personal Development

- McKinsey**
Forward Programme
11/2021 – 05/2022
- NVIDIA**
Fundamentals of Deep Learning
03/2022

PROFILE

My research focuses on the intersection of image analysis and human mobility estimation, with a specialization in estimating human displacement using low-resolution satellite imagery. This involves designing and implementing machine learning models while working with large-scale satellite images.

I enjoy tackling technical challenges in remote sensing data analysis and am driven by a commitment to applying technology for meaningful societal impact. I am always seeking opportunities to deepen my expertise in image analysis and remote sensing data processing.

I aspire to pursue a career in an academic institution that challenges my competence and fosters my leadership drive to achieve both institutional and personal development goals.

EDUCATION

Saarland University PhD in Computer Science  Saarbruecken, Germany	Since 04/2024
<i>Tentative Thesis:</i> Estimating Human Mobility Patterns from Low-Resolution Satellite Imagery Using Advanced Machine Learning Techniques	
Saarland University PhD Preparatory Phase  Saarbruecken, Germany	04/2023 - 03/2024
<i>Grade:</i> 2.1 / 5 (Good)	
<i>Major Courses:</i> • Computer Vision • Data Science • Machine Learning	
African Institute for Mathematical Sciences (AIMS) Master of Sciences (Mathematical Sciences)  Accra, Ghana	10/2020- 07/2021
<i>Thesis:</i> Feature Extraction Technique to Mitigate Electromagnetic Interference in Radio Astronomy Images via Simulation	
<i>Grade:</i> 84/100 (Very Good Pass)	
<i>Major Courses:</i> • Machine Learning • Pattern Recognition • Linear Algebra	
Ghana Communication Technology University Bachelor of Science (Computer Engineering)  Accra, Ghana	10/2014 - 07/2018
<i>Thesis:</i> Design and Implementation of a Portion Size Educator	
<i>Grade:</i> 75/100 (First Class Honors)	
<i>Major Courses:</i> • Advanced Computer Architecture • Electronics • VLSI and Embedded Systems • Data Structures and Algorithm	

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References

Prof. Ingmar Weber
AvH Professor for AI
✉ iweber@cs.uni-saarland.de

Mr. Michael Xenya
Assistant Lecturer
✉ mxenya@gctu.edu.gh

Scholarships

European School of Management and Technology
Industry Immersion Program
10/2020 – 07/2021

African Institute for Mathematical Sciences
Next Einstein Initiative Scholarship
10/2020 – 07/2021

Voluntary Services

Madina Technical Institute
Tutor (Mathematics)
11/2021 – 12/2021

Santoe Junior High School
Tutor (Integrated Science)
03/2021

WORK EXPERIENCE

Interdisciplinary Institute for Societal Computing
Scientific Researcher
📍 Saarbruecken, Germany
Duties and Responsibilities:
• Satellite Image Analysis for parking lot estimation.
• Design and maintaining reproducible and scalable codes.
Since 04/2024

Ishango (Attached to Philip Morris International)
Data Scientist
📍 Remote
Duties and responsibilities:
• Land parcel detection using remote sensing
• Crop type classification using remote sensing
06/2022 - 03/2023

Fidelity Bank Ghana Limited
Data Scientist
📍 Accra, Ghana
Duties and Responsibilities:
• Deploy models via APIs
• Data Visualization
03/2022 - 05/2022

Fidelity Bank Ghana Limited
Data Scientist (Internship)
📍 Accra, Ghana
Duties and Responsibilities:
• Develop Machine Learning Algorithms for Operations
• Data Extraction and Cleaning
10/2021 - 02/2022

Ghana Communication Technology University
Teaching Assistant (National Service)
📍 Tesano, Ghana
Duties and Responsibilities:
• Lab sessions
• Tutorials
08/2019 - 09/2020

Lister Professional Institute
Hardware and Networking Teacher
📍 Accra, Ghana
Duties and Responsibilities:
• Subnet Mask, Basic Network Setup and Configuration
08/2019 - 09/2020

Vodafone Ghana Ltd.
Office Information Technology Support (Internship)
📍 Cape Coast, Ghana
Duties and Responsibilities:
• Resolved Computer networking issues
• Prepared periodic reports on resolved computer related issues
06/2017 – 08/2017

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IT Skills

C++	●●●●●●●●●●●●●●●●●●●●
Java	●●●●●●●●●●●●●●●●●●●●
Python	●●●●●●●●●●●●●●●●●●●●
MSSQL	●●●●●●●●●●●●●●●●●●●●
Latex	●●●●●●●●●●●●●●●●●●●●
Git	●●●●●●●●●●●●●●●●●●●●
Azure ML	●●●●●●●●●●●●●●●●●●●●
MATLAB	●●●●●●●●●●●●●●●●●●●●
Linux (Ubuntu)	●●●●●●●●●●●●●●●●●●●●
Windows OS	●●●●●●●●●●●●●●●●●●●●
PowerBI	●●●●●●●●●●●●●●●●●●●●

WORK EXPERIENCE - CONTINUED

Vodafone Ghana Ltd.06/2016 – 08/2016

Office Information Technology Support (Internship)

📍 Cape Coast, Ghana

Duties and Responsibilities:

- Resolved minor computer hardware issues
- Prepared periodic reports on resolved computer related issues

Vodafone Ghana Ltd.06/2015 – 08/2015

Office Information Technology Support (Internship)

📍 Cape Coast, Ghana

Duties and Responsibilities:

- Customer engagement at retail department
- Prepared periodic reports on resolved computer related issues

Ghana Ports and Habor Authority04/2013 – 07/2013

IT Professional (Internship)

📍 Takoradi, Ghana

Duties and Responsibilities:

- Diagnosed Hardware Faults
- Network Connection using UTP

Papermore Consult01/2013 – 04/2013

IT Professional (Internship)

📍 Takoradi, Ghana

Duties and Responsibilities:

- Resolved minor PC startup issues
- Resolved minor printer related issues

ACADEMIC PROJECTS

LLMRS: Unlocking Potentials of LLM-Based Recommender Systems for Software Purchase04/2023 – 08/2023

Conference Publication

📍 Saarbruecken, Germany

Social capital mediates knowledge gaps in informing sexual and reproductive health behaviours across Africa04/2023 – 08/2023

Journal Publication

Interdisciplinary Institute for Societal Computing

📍 Saarbruecken, Germany

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Conferences

Data for the Wellbeing of the Most Vulnerable
(ICWSM 2025)
A Weak Supervision Learning Approach Towards an Equitable Mobility Estimation

Applied Machine Learning Days (AMLD Africa 2022)
Land Boundary Delineation Using Unet

Data Science Conference (DSC Europe 22)
Land Boundary Delineation Using Unet

CERTIFICATES

University of Saarland (Summer School)
[Summer Institute for Computational Social Science](#)

09/2025



Saarbruecken, Germany

Modules:

- Measuring and understanding bias in digital trace data
- Network Canvas – Measuring social structure through self-reported visual network surveys

University of Copenhagen (Summer School)
[Self Supervised Learning for Earth Observation](#)

07/2024



Copenhagen, Denmark

Modules:

- Self Supervision for Satellite images
- Augmentation Techniques for Satellite images

European School of Management and Technology (ESMT)
[Postgraduate Certificate in Business Administration](#)

07/2021 –
08/2021



Berlin, Germany (Remote)

Modules:

- Data Analysis, Management
- Design Thinking

Institute of Commercial Mangement (ICM)
[Postgraduate Diploma Courses in Computer Management](#)

07/2012 –
08/2013



Hampshire, UK (Remote)

Modules:

- Networks
- Information Processing
- Managing Computer Systems
- Hardware and Operating Systems