# Khadija Ewonye Yakubu

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A Data Science and Microsoft Automation Expert with 2 years of work experience.Skilled in data analysis, fine-tuning large language models, anomaly detection, and automating business processes using Microsoft AI tools. I also have experience in supervising interns and delivering academic support as a teaching assistant. Passionate about leveraging Machine learning AI tools and generative AI to improve clinical outcomes.

## Education

**African Institute for Mathematical Sciences**                                    *Mbour, Senegal*
Msc.Mathematical Sciences(option: Big Data)                                  *November 2020 – July 2022*

**Kwame Nkrumah University of Science and Technology**                      *Kumasi,Ghana*
Bsc.Mathematics                                                        *August 2015 – June 2019*

## Interests

Natural Language Processing,LLM, Image processing, Computer Vision, Medical Imaging, Data Science

## Research Experience

**Anomaly detection in Network/Communication Systems**          *African Institute for Mathematical Sciences*

Utilizing state-of-the-art Machine/Deep learning techniques and combining it with existing anomaly detection techniques

**Finetuning Large Language Models for a solution to answer questions asked about a company**          *AI4SENSE*
Using Llama 2 and Mistrail models to fine-tune on dataset created and deploying on streamlit

**Use and extend Microsoft AI Platform to automate business processes for companies by using pre-built models or custom models**          *AI4SENSE*
Building chatbots with Microsoft tools to automate tasks related to Sharepoint, Teams, OneDrive, and Quota Allocation.

**Orthogonal Collocation of Finite Element**
Kwame Nkrumah University of Science and Technology
Partial fulfilment of degree in Bachelor's degree

## Teaching Experience

**African Institute for Mathematical Sciences**                         *Mbour-Thies,Senegal*
Industry case study tutor                                          *September 2019 – August 2020*
- This industry session is to deep dive into the world of cloud computing, specifically Microsoft Cloud.How the Power platform tools can be integrated into building solutions such as chatbots, dashboards, and apps, explore some use cases
- Overview of Azure AI, how to use the Azure Openai for generative AI purposes.
- Exploring the field of computer vision. Including image problems,applications and introductory labs.

**Kwame Nkrumah University of Science and Technology, Department of Mathematics**          *Kumasi,Ghana*
Teaching Assistant                                                *September 2019 – August 2020*
- Tutorial classes on Algebra and Introduction to Functional Analysis
- Organizing and conducting tutorials for students
- Marking and grading scripts
- Preparing trial questions for students to try out
- Participating in departmental events including seminars

# Experience

**Data Science/Automation Expert** *Remote*

Sensor6ty/AI4sense *February 2022 – Date*

- Appling homography techniques in basketball for the accurate player and ball tracking to enhancing video analysis
- Automating tasks on Microsoft Teams, SharePoint, and One Drive, by building bots and flows using the Microsoft Power platform tools.
- Working with teammates in labeling data, building models for Jersey, and players' video identification.
- Supervising interns on projects allocated

**Supervisory**

Sensor6ty/AI4sense *Jun 2023-Date*

- Supervising interns in projects; Building intelligent and Automated Accounting Systems, thus building a system that utilizes OCR and Microsoft AI tools to extract data from receipts and invoices for financial analysis.As well as employing the use of Large Language models to streamline the process.
- AI-powered Strategic Workforce Planning: skills gap analysis, external talent supply. This project aimed to bridge the gap between the acquired and required skills of an employee by taking into account their CVs and certification and utilizing the AI tools, Large Language Models, and Power Platform, to match employees to specific projects in the company.

**Teaching Assistant** *Kumasi,Ghana*

Kwame Nkrumah University of Science and Technology, Department of Mathematics *September 2019 – August 2020*

- Organizing and conducting tutorials for students
- Marking and grading scripts
- Preparing trial questions for students to try out
- Participating in departmental events including seminars

**National Investment Bank, Tamale Main Branch** *Tamale,Ghana*

Customer services personnel/Intern *May 2018 - July 2018*

**GCB Bank,Tamale Hospital Road Branch** *Tamale,Ghana*

Customer services personnel/Intern *May 2017 - June 2017*

**GCB Bank,Tamale Market Branch,Ghana** *Tamale,Ghana*

Customer services personnel/Intern *June 2016 - July 2016*

# Skills

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|---|---|
| **Programming** | Python (Pandas,NumPy, Scikit-learn, plotly, tensorflow. etc.), R, SQL, Hadoop, HTML/CSS. |
| **Miscellaneous** | Linux, Shell (Bash/Zsh),LaTeX, Tableau, Microsoft Office, Cloud Computing(Microsoft Azure,Power Platform) |
| **Soft Skills** | Teamwork, Problem-solving . |

# SCHOLARSHIPS/AWARDS

- Awarded a full scholarship by the African Institute for Mathematical Sciences to pursue a master's degree
- Ghana Tech Lab stipend from ABSA for Web Technology Trainees program
- Ghana Data Science Summit 2022 (IndabaX Ghana) Travel Grant for in-person attendance and Poster presentation

# Presentations and Publications **Poster**

- Khadija Ewonye Yakubu, Presented:Ghana Data Science Summit,September 20, 2022, https://www.slideshare.net/kwadwoAmedi/posterewonyepdf

# Certificates

- 2022    Microsoft Certified: Azure AI Engineer Associate link
- 2022    Microsoft Certified: Azure Data Scientist Associate link
- 2023    DeepLearning.AI|Coursera Deep Learning Specialization link
- 2023    DeepLearningAI | Coursera AI for Medical Diagnosis link
- 2022    Microsoft Certified: Power Platform Fundamental link
- 2021    coursera-Neural Network and Deep Learning(Deep Learning A.I) link
- 2021    Data Visualization and Data Wrangling Masterclass with Python link

# References

**Dr. Arnaud Zinflou**
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**Dr. Abdul Nasah Soale**
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