# Isaac Kobby Anni

Bowling Green, OH. 43402 | 419-378-9889 | isaacka@bgsu.edu | LinkedIn Profile| Personal website

## OBJECTIVE STATEMENT

I specialize in advanced analytics and aim to utilize my skills in machine learning and data manipulation to contribute valuable insights and address intricate data challenges within a collaborative team environment.

## EDUCATION

**Bowling Green State University**. *Bowling Green, USA. May 2027.*

*Major: Data Science, Doctor of Philosophy.*

*Relevant Coursework: Big Data Analytics, Data Science Ethics, Statistical Learning*

**Bowling Green State University**. *Bowling Green, USA. May 2024.*

*Major: Data Science, Masters.*

*Relevant Coursework: Machine Learning, Data Science Programming, Database Management System, Probability and Statistics.*

**African Institute for Mathematical Sciences**. *Dakar, Senegal, July 2022.*

*Major in Big Data and minor Statistics, Masters.*

*Relevant Coursework: Machine Learning, Deep Learning, Statistics and Probability, Data Mining and Big Data Analytics.*

**University for Development Studies**. *Navrongo, Ghana, June 2019.*

*Major: Finance and, minor: Mathematics, Bachelors.*

*Relevant Coursework: Corporate Finance, Calculus, Numerical Methods, Operations Research.*

## PROFESSIONAL EXPERIENCE

**Graduate Assistant, Student Success Analytics and Technologies.** *Bowling Green, US.*
*Aug 2022 – Present*

- Collaborate with cross-functional teams to understand data analysis needs and deliver actionable insight.
- Utilize advanced PowerBI functionalities to visualize and interpret complex data sets for academic performance metrics.
- Implement Python scripts to clean, transform, and prepare large volumes of educational data for analysis.
- Conduct rigorous statistical analyses to identify trends and patterns in student success data.
- Design and maintain cloud databases for efficient data storage and quick retrieval for analysis purposes.
- Employ machine learning algorithms to build and refine predictive models related to student outcomes.
- Develop and test hypotheses related to student engagement, performance, and retention using quantitative methods.
- Present findings to faculty and administration to inform data-driven decision-making processes.
- Maintain strict data privacy standards and ethical research practices when handling sensitive student information.

**Data Science Fellow, ICRISAT/CLU.** *Tucson (Remote), USA.*
*March 2022 – August 2022*

- Conducted in-depth review of 10+ crop research papers in Senegal, extracting essential variables for analysis.
- Enhanced and maintained scripts for parameter extraction in crop simulation, supporting the DSSAT project.
- Improved performance of existing crop parameter extraction scripts, optimizing data processing.
- Delivered weekly project progress presentations to stakeholders.
- Utilized OpenAI's GPT-3 to conduct prompt analyses for crop sentiment analysis.
- Implemented cosine similarity analyses on extensive texts to identify keywords in crop research.
- Contributed to a project focused on belief extraction from large textual datasets.
- Submitted a pull request for the HABITUS project on GitHub, contributing to open-source development.

**Data Scientist Jr, Obertys Technologies.** *Dakar, Senegal.*
*June 2022 – March 2022*

- Developed Credit Scoring Model, improving loan approval accuracy by 20%.
- Analyzed data from 15 financial institutions, leading to $55k in potential savings.
- Created 30+ novel features for enhanced model performance.
- Led model experimentation, achieving a 15% accuracy boost and 10% reduction in false positives.
- Innovated queuing management algorithm, reducing processing time by 25%.
- Designed an automated data pipeline, cutting preprocessing time by 30%.
- Implemented data security measures for GDPR compliance.
- Collaborated cross-functionally to align projects with business goals.
- Mentored junior team members for improved productivity.
- Consistently met project deadlines.
- Maintained the company projects GitHub resources.

**Data Scientist Jr, Baamtu Technologies.** *Dakar, Senegal.*
*Feb 2021 – June 2022*

- Spearheaded end-to-end computer vision project, encompassing data collection (drones and satellite imagery), annotation using LabelStudio, and extensive image preprocessing.
- Orchestrated a project pipeline with custom preprocessing functions and utilized transfer learning for feature extraction and model training.
- Achieved an impressive 89% Intersection over Union (IoU) score through rigorous model experimentation.
- Engineered a user-friendly presentation dashboard with Streamlit for seamless communication with the team and supervisors.
- Actively participated in weekly project meetings, ensuring ongoing alignment and consistent progress update.

## DATA SCIENCE PROJECTS

**Fake News Detection with Fine-Tuned Transformers:** Python, PyTorch, Jupyter Notebook.

- Adapted a state-of-the-art transformer-based neural network for fake news classification through advanced fine-tuning techniques.
- Conducted numerous experiments to optimize the model's hyperparameters, resulting in a highly accurate system capable of discerning authentic news from fraudulent content.

**Potato Disease Identification via Transfer Learning on CNN:** Python, TensorFlow, Jupyter Notebook.

- Engineered a transfer learning approach utilizing a pre-trained Convolutional Neural Network to classify various potato diseases.
- Achieved a high degree of model precision with a 96% classification accuracy by iteratively fine-tuning and validating the CNN on a dataset representing 10 distinct disease categories.

**Geospatial Building Segmentation for Real Estate with U-Net:** Python, PyTorch, LabelStudio

- Developed a U-Net deep learning model for efficient geospatial segmentation of rental properties in Senegal using satellite imagery.
- Enhanced building localization in urban imagery for real estate assessment using advanced image segmentation techniques.

## SKILLS & TOOLS

**Programming Skills:** Python (PyTorch, TensorFlow), R, C++, JavaScript
**AI & ML Concepts**: Computer Vision, NLP, Predictive Modeling, Graph ML.
**Data Management & Analytics:** SQL, NoSQL (MongoDB)
**Tools:** Jupyter, Visual Studio, Git, PowerBI.
**People Skills**: Team Player, Emotional Intelligent, Sociable
**Communication**: Written and Oral

## RESEARCH EXPERIENCE

- **Annotating and Training for Population Subjective Views.** Maria Alexeeva; Caroline Hyland; Keith Alcock; Allegra A. Beal Cohen; Hubert Kanyamahanga; **Isaac Kobby Anni**; and Mihai Surdeanu. In *13th Workshop on Computational Approaches to Subjectivity, Sentiment & Social Media Analysis*, 2023. link