Isaac Kobby Anni

Data Scientist – NLP, Computer Vision & Predictive Analytics
isaacka@bgsu.edu | (419) 378-9889 | linkedin.com/in/isaac-kobby-anni | isaackobby.com | Bowling Green, OH

Summary

Data Scientist with 3+ years of industry and 5+ years of academic experience in NLP, computer vision, and predictive analytics. Skilled in training and fine-tuning transformers, developing scalable AI solutions, and applying machine learning to education, agriculture, and finance. Proficient in Python, PyTorch, TensorFlow, and distributed/cloud computing. Recognized for delivering actionable insights, deploying production-ready models, and contributing to peer-reviewed publications.

Skills

- Data Science & Machine Learning: NLP, Computer Vision, Predictive Modeling, Graph ML, Statistical Analysis
- Transformer Training & Fine-Tuning: BERT, GPT, Transfer Learning, Model Optimization
- Programming: Python (PyTorch, TensorFlow, NumPy, Pandas, Scikit-learn), R, C++, JavaScript
- Data Management: SQL, NoSQL (MongoDB), Data Cleaning, Feature Engineering
- Tools & Platforms: Jupyter, Git, PowerBI, Visual Studio, Docker, Kubernetes
- Cloud & Distributed Computing: AWS, Google Cloud, Azure, Ray, Dask, Spark

Experience

- **Data Science Intern/Graduate Assistant – Student Success Analytics & Tech.** Aug 2022 – Present
  Bowling Green State University *Bowling Green, OH*
  - Designed and deployed predictive models for student success and retention using Python and statistical methods.
  - Implemented advanced PowerBI dashboards to visualize academic performance metrics.
  - Developed cloud-based databases for large-scale educational data analysis.
  - Applied NLP techniques to analyze student engagement data and identify at-risk populations.
  - Ensured ethical handling of sensitive student data.

- **Data Science Intern** Mar 2022 – Aug 2022
  ICRISAT/CLU *Remote, Tucson, AZ*
  - Conducted literature reviews of 10+ agricultural research studies, extracting key variables.
  - Enhanced crop parameter extraction scripts for the DSSAT project, improving runtime and accuracy.
  - Applied GPT-3 prompt engineering for agricultural sentiment analysis and cosine similarity for keyword extraction.
  - Delivered weekly progress reports and contributed to open-source HABITUS project on GitHub.

- **Data Scientist Intern** Oct 2021 – Mar 2022
  Baamtu Technologies *Dakar, Senegal (Hybrid)*
  - Led end-to-end geospatial computer vision project using drone and satellite imagery for real estate.
  - Built preprocessing pipelines and applied transfer learning, achieving 89% IoU on building segmentation tasks.
  - Deployed interactive Streamlit dashboard for project presentation.

- **Data Scientist Jr** Jul 2021 – Mar 2022
  Obertys Technologies *Dakar, Senegal (Hybrid)*
  - Developed credit scoring models improving loan approval accuracy by 20% and reducing false positives by 10%.
  - Engineered 30+ new features, increasing predictive performance.
  - Built automated pipelines reducing preprocessing time by 30% and implemented GDPR-compliant data security.

Education

- Ph.D., Data Science — Bowling Green State University — May 2027
- M.S., Data Science — Bowling Green State University — May 2024
- M.S., Big Data & Statistics — African Institute for Mathematical Sciences — Jul 2022
- B.S., Finance & Mathematics — University for Development Studies — Jun 2019

Publications & Research

- *Analysis of Document Representation for Text Classification*, Future of Information and Communication Conference (FICC), Springer Nature Switzerland, 2025 – Co-authored with Venu G. Dasigi.
- *Annotating and Training for Population Subjective Views*, WASSA 2023 – Co-authored research on belief extraction using NLP techniques.

Technical Skills

- Languages: Python, R, C++, JavaScript
- Frameworks & Libraries: PyTorch, TensorFlow, Scikit-learn, NumPy, Pandas
- Databases: SQL, MongoDB
- Tools: Jupyter, Git, PowerBI, LabelStudio, Streamlit
- Cloud & Infrastructure: AWS, Google Cloud, Azure, Docker, Kubernetes
- Specialized Domains: NLP, Computer Vision, Predictive Analytics, Geospatial AI

Achievements

- Designed and deployed predictive models for student success and retention at Bowling Green State University, improving early identification of at-risk students by 18%.
- Built interactive PowerBI dashboards for academic performance metrics, reducing manual reporting time by 40% for faculty and administration.
- Enhanced cloud-based data infrastructure for large-scale educational data analysis, enabling 2x faster retrieval for research teams.
- Improved DSSAT crop parameter extraction scripts at ICRISAT/CLU, decreasing processing time by 25% while increasing accuracy of simulation inputs.
- Applied GPT-3 prompt engineering for agricultural sentiment analysis, improving keyword extraction precision by 15%
- Led a geospatial computer vision project at Baamtu Technologies using drone and satellite imagery, achieving 89% IoU for building segmentation in urban areas.
- Created a credit scoring model at Obertys Technologies that improved loan approval accuracy by 20% and reduced false positives by 10%, leading to better lending decisions.