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Education

North Carolina A&T State University   Aug 2023 - Dec 2025

M.S. in Computational Data Science   Greensboro, NC

- **GPA**: 3.92/4.0
- **Concentration:** Artificial Intelligence & Machine Learning
- **Relevant Coursework:** Deep Learning, Advanced Interactive Visualization, Data Structures & Algorithms, Machine Learn & Data Mining

Babcock University   Aug 2018 - July 2022

B.S. in Computer Science, Upper Second-Class Honors   Lagos, NG

- **GPA**: 3.56/4.0
- **Relevant Coursework:** System Analysis & Design, Software Engineering, Database Design & Management

Skills

- Languages: JavaScript (React.js, Angular.js), Python, R, MATLAB, Java, C++
- Technologies: Node.js, React.js, Express.js, Vanilla JS, Docker, Linux, HTML/CSS, Spark, Git, OpenAI API, HuggingFace Hub
- Databases: MySQL, MariaDB, PostgreSQL, Microsoft SQL Server, MongoDB
- AI Frameworks: TensorFlow, PyTorch, Scikit-learn, Keras, OpenCV, BERT, RAG, Hugging Face, XGBoost, Quantization
- Data Science: Statistics, Data Modeling, Data Engineering, Statistical Modeling, Analytical Skills

Work Experience

North Carolina A&T State University   Sep 2023 – Dec 2025

Graduate Research Assistant   Greensboro, NC

Graduate Research Assistant | Python, JSON, C++, ns-3, GridLAB-D, HELICS

- Directed the development of IreNatJson's attack-vector generation pipeline for power grid simulations, collaborating with research teams to refine simulation experiments and enhance cyber-physical security testing.
- Integrated machine learning algorithms with rule-based logic to simulate power grid faults and cyber-attacks, utilizing statistical methods to inform simulation parameters within a dynamic GridLAB-D JSON (GLM) pipeline.
- Engineered automated features for vulnerability injection, scenario generation, and simulation management, streamlining creation of diverse attack scenarios through Python scripting and JSON-based configuration.
- Developed simulation orchestration scripts in GridLAB-D using Python and JSON, applying ML/AI techniques to evaluate experiment outcomes and improve smart grid resilience.**GitHub**

UpperLink Limited   Aug 2022 – July 2023

Software Engineer   Lagos, NG

Software Engineer Intern | Angular, MySQL, Python, HTML/CSS, JavaScript, Java

- Collaborated with a cross-functional team where I Architected and implemented a component library of 40+ reusable React.js UI components, reducing development time by 40% across 2 enterprise client projects in e-commerce.
- Improved application reliability by writing unit and integration tests with Jest, increasing code coverage of key components by 20% and reducing post-deployment bugs.
- Developed and consumed RESTful APIs to facilitate seamless data communication between the front-end client and back-end services, ensuring efficient data handling.
- Achieved sub-second database response times for a high-traffic system handling over 10,000 daily transactions by implementing strategic query optimizations and indexing.
- Managed code contributions and participated in peer code reviews using Git, to maintain quality and consistency across a 200k+ line codebase.

Fidson Healthcare PLC.   Jan 2021 – May 2021

IT Technician   Lagos, NG

IT Technician | Microsoft Power Apps

- Maintained and repaired servers to ensure 99.9% uptime, supporting uninterrupted workflows and data reliability for staff operations.
- Developed a bidding app in Microsoft Power Apps that reduced the internal bidding cycle by 30%, contributing to accelerated deal flow and enhanced team productivity.

Projects

GPT-2 IMDB Fine-tuning & Eval | Python, PyTorch, Hugging Face, Typer, Colab/GPU
- Built an end-to-end text-gen training toolkit (train/generate/evaluate CLIs) with reproducible Colab plus local flows; exported checkpoints and published a Hub model for reuse.
- Exported final weights plus tokenizer and published model to the Hugging Face Hub: **gpt2-imdb-tuned**.
- Implemented a robust perplexity evaluator; ~32.6 PPL on a 2k-sample IMDB test slice at max_len=512, enabling quick comparisons. **GitHub**

Conversational RAG System | LangChain, LangGraph, FAISS, SentenceTransformers, Ollama, Python/Typer
- Built a reproducible RAG baseline over 10k Simple-Wikipedia pages (CPU embeddings via all-MiniLM-L6-v2 as the LLM).
- Shipped CLIs rag-ask and rag-chat via console scripts.
- Observed <250 ms FAISS retrieval (k=4, 10k docs, CPU) and ~7–11 s gen on a 1B local model (Ollama llama3.2:1b-instruct-q4_K_M). **GitHub**

Credit Card Fraud Detection | Python, scikit-learn, XGBoost
- Built an end-to-end notebook: EDA - splits - Logistic/RF/XGBoost - probability calibration - PR-AUC reporting - business-cost thresholding and sensitivity.
- I implemented a cost function and selected the operating threshold on validation to minimize expected total cost; evaluated on a held-out test set with low-FPR recall.
- Produced calibration (reliability) curves, PR curves with the chosen operating point, confusion matrices, and a cost vs. threshold curve for auditability.
- Achieved 93.1% precision at 0.10% alerts (≈102/100k) with $4.08K cost high-precision mode, outperforming XGB-Cal at the same policy. **GitHub**

Deep Fake Detection with ELA-Enhanced CNNs | TensorFlow, Keras, OpenCV, Transfer Learning
- Built a two-stage pipeline combining Error-Level Analysis (ELA**)** and custom CNNs to flag image forgeries on a curated 6 000-image Kaggle headshot set (50 % fakes).
- Achieved **72 %** test accuracy (+9 pp gain over a vanilla CNN) by pre-highlighting compression artifacts before feature extraction.
- Benchmarked five transfer-learning backbones (VGG-16/19, ResNet-50, Inception V3, EfficientNet-B0); ELA-CNN matched VGG-19 while cutting inference latency 25 %.
- Delivered Collab Pro notebook with GPU training, hyper-parameter search (batch, LR, optimizers) and confusion-matrix visualizations. **GitHub**

Healthcare Evaluation Framework Implementation | Python, PyTorch, Hugging Face Transformers, Docker
- Engineered an extensible evaluation framework that scores large-language-model (LLM) healthcare chatbots across Accuracy, Trustworthiness, Empathy and Performance, fully aligning with the 2024 NIST/Stanford "Foundation Metrics for Healthcare Conversations" taxonomy.
- Automated metric-pipelines (ROUGE, BERT Score, safety & bias probes, latency/FLOPs profilers) and a YAML-driven experiment launcher; supports both HF and AWQ/GPTQ-quantized models with <4 GB GPU RAM.
- Integrated multiple LLMs, meta-Llama-3.2-1B and a 7 B AWQ-quantized Llama-2 baseline, delivering a 2-hour reproducible benchmark over 1 000 TriviaQA health questions. **GitHub**

Leadership & Community Involvement

- National Society of Black Engineers   - Babcock University Computer Club   - African Students Union