Curriculum Vitae

FRANCIS EMMANUEL NWEKE

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RESEARCH INTERESTS/OBJECTIVE

My research focuses on Human-AI Collaboration and Explainable AI, which integrate deep learning, interpretability, and reliable decision systems. My goal is to bring human-centered and explainable AI approaches to real-world decision systems.

EDUCATION

Doctor of Philosophy in Computer Science August 2023 – present
Kennesaw State University, USA

Bachelor of Science in Computer Science September 2015 – May 2019
Ghana Institute of Management and Public Administration (GIMPA)

HONORS AND AWARDS

Outstanding PhD Student Teaching Award (KSU) 2025

First Class Honors in BSc. Computer Science May 2019

Best Graduating Student in Information and Communication Technology (ICT) in High School July 2015

RESEARCH EXPERIENCE

Graduate Research Assistant January 2025 – present
Kennesaw State University, USA
Advisor: Dr. Herman Ray

Dissertation (Human-AI Collaboration in XAI) August 2025 – present
Kennesaw State University, USA
Advisor: Dr. Hafiz Khan

Graduate Research Assistant January 2024 – December 2024
Kennesaw State University, USA
Advisor: Dr. Hafiz Khan

Student Project Repository and Allocation System April 2019
Ghana Institute of Management and Public Administration, Ghana
Advisor: Dr. Nana Kwame Amagyei

- Improved my writing and research skills.
- Improved my communication skills.

An Open-Source Bus Reservation System November 2018
Ghana Institute of Management and Public Administration, Ghana
Advisor: Dr. Joseph Budu

- The research focused on benefits and challenges in open-source projects taken into consideration were past open-source research projects.

RELEVANT PROJECTS

Intelligent Interactive Behavioral Health Annotation Tool (iBHAT): I developed a tool used by subject matter experts to annotate ground-truths from narrative reports.

911 Behavioral Health Response Project: I am using ML models to predict behavioral health disorders.

Automated Detection of Letters from Brain Signals: I revealed that it is possible to detect individual letters from EEG signals using non-invasive approaches, demonstrating the potential of thought-to-text technology to help a wide range of people and applications.

****Note: This is not an exhaustive list; for more projects, please visit my GitHub**

PROFESSIONAL AFFILIATIONS/WORK EXPERIENCE

PhD Intern at Equifax (via GRA) March 2025 – present
Equifax

Co-Principal Investigator August 2025 – present
First-Year Scholars Program (SymbioticRAG: Human-LLM Collaboration Framework for Trustworthy Retrieval)
Kennesaw State University, USA

Co-Principal Investigator August 2025 – present
Vertically Integrated Projects (VIP) Program
Kennesaw State University, USA

Co-Principal Investigator August 2024 – May 2025
First-Year Scholars Program (Human-AI Teaming utilizing NLP)
Kennesaw State University, USA

Graduate Teaching Assistant (FYE) August 2023 – December 2023
Kennesaw State University, USA

Software and Database Engineer November 2019 – July 2023
Datalinks Finance and Systems Consulting Limited

- Member of the research and development (R & D) team.
- Responsible for backend and database development of a core banking application (Eazybank4), and Business Intelligence (BI) development.

FEATURED PUBLICATIONS

- **Francis, Nweke**; Abm Adnan, Azmee; Md Abdullah Al Hafiz, Khan; Yong, Pei; Dominic, Thomas; & Monica, Nandan. Explainable Multi-Label Classification Framework for Behavioral Health based on Domain Concepts. IEEE Big Data 2024 conference.

- Christopher, Dargan; **Francis, Nweke**; Md Abdullah Al Hafiz, Khan; Abm Adnan, Azmee; & Yong, Pei (2024). Automated Alphabet Detection from Brain Waves. Proceedings of the 2024 ACM Southeast Conference, 247-252.

- Abm Adnan, Azmee; **Francis, Nweke**; Md Abdullah Al Hafiz, Khan; Yong, Pei; Dominic, Thomas; & Monica, Nandan. Large Language Models Performance Comparison of Emotion and Sentiment Classification. Proceedings of the 2024 ACM Southeast Conference, 60-68.

- **Francis, Nweke**; Abm Adnan, Azmee; Md Abdullah Al Hafiz, Khan; Yong, Pei; Dominic, Thomas; & Monica, Nandan (2024). A transformer-driven framework for multi-label behavioral health classification in police narratives. Applied Computing and Intelligence (ACI)*, 4*(2), 234-252.

- Abm Adnan, Azmee; **Francis, Nweke**; Md Abdullah Al Hafiz, Khan; Yong, Pei; Dominic, Thomas; & Monica, Nandan. Multi-Label Behavioral Health Classification from Police Narrative. ICMLA 2024 conference.

- Pederson, Mason; Abm Adnan, Azmee; **Francis, Nweke**; Md Abdullah Al Hafiz, Khan; Yong, Pei; Dominic, Thomas; & Monica, Nandan. Combined Correlational Network for Identifying Behavioral Health Cases from First Responder Report. IEEE Big Data 2024 conference.

- William A Stigall; **Francis, Nweke**; Hailey N walker; Md Abdullah Al Hafiz, Khan; Sharon Perry Yong, Pei; Dominic, Thomas; & Monica, Nandan. RECAP: reinforced, explainable LLM classifier for behavioral-health analysis in police narratives. Applied Computing and Intelligence, Vol 5 Issue 2, 2025.

- Abm Adnan, Azmee; **Francis, Nweke**; Mason Pederson; Md Abdullah Al Hafiz, Khan; & Yong, Pei. Human-AI collaboration framework for detecting mental illness causes from social media. Smart Health 2025.