Suliah Victor Bamomwo

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Research Interests

Deep Learning, Natural Language Processing, Reinforcement Learning

Education

University of Electronic Science and Technology of China (UESTC) 2024 – 2026 (Expected)
Master of Engineering in Software Engineering (GPA: 3.85/4.0)
Scholarship: Chinese Government Scholarship

University for Development Studies, Tamale (UDS), Ghana 2016 – 2020
BSc. Computer Science, First Class Honors (GPA: 4.52/5.00)
Scholarship: MTN Bright Scholarship

Research Experience

Research Assistant University for Development Studies
2021 – 2022
Advisor: Prof. Edward Y. Baagyere

- Assisted in conducting research through data collection and analysis.
- Assisted in tutoring undergraduate courses: Computer Graphics and Introduction to Python Programming.
- Supported in lesson planning, tutoring, and assessment.

Student Researcher University of Electronic Science and Technology of China
2024 – Present
Advisor: Prof. Qin Zhen

- Independent research (thesis) on personalized health monitoring through wearable biosignals
- Collaborated with postdoctoral researchers on laboratory-based research projects.

Professional Experience

Software Developer Afro Technologies, Accra, Ghana
2023 – 2024

- Contributed to the design of backend infrastructure for educational technology products.
- Led prototyping of adaptive learning tools.
- Collaborated on research into AI-based education systems.

Publications

- V. Suliah et.al., "Learning Individual Health Baselines from Wearable Biosignals for Personalized Health Monitoring," *IEEE Journal of Biomedical and Health Informatics*, under review, 2025.

Projects

Learning Individual health Baselines from Wearable Biosignals *2025*
Developing a deep learning framework to model individual health baselines and detect anomalies in physiological signals (e.g., heart rate, EDA). Techniques used include unsupervised learning, PyTorch, and signal processing.

KR-Reasoner: Graph Knowledge Representation for LLM Reasoning *2025*
A modular framework that separates knowledge representation from actual reasoning processes, enabling causal LLMs to plan and self-evaluate in solving complex problems.

Optimizing Branching in Branch-and-Bound for RCPSP Instances via Reinforcement Learning *2025*
We train a policy to optimize branching in the Branch-and-Bound algorithm for Resource Constraint Project Scheduling Project Instances (RCPSP). We train the policy first using supervised Imitation Learning and then subsequently fine-tune it with Reinforcement Learning.

Technical Skills

- **Languages:** Python, JavaScript, C++
- **Machine Learning:** PyTorch, TensorFlow, OpenCV, Hugging Face Transformers
- **Tools:** Git, Jupyter Notebook
- **Databases:** SQL, PostgreSQL, MongoDB
- **Software Dev:** Node.js, Flutter

Awards and Leadership

- Chinese Government Scholarship (2024)
- MTN Bright Scholarship (Undergraduate)
- Best Graduating Computer Science Student (2020)
- President, Computer Science Association, UDS
- President, MTN Bright Scholars, UDS

Certification

- Supervised Machine Learning: Regression and Classification — DeepLearning.AI
- MCP: Build Rich-Context AI Apps with Anthropic — DeepLearning.AI
- How Transformer LLMs Work — DeepLearning.AI
- Attention in Transformers: Concepts and Code in PyTorch — DeepLearning.AI
- Introduction to Deep Learning — Kaggle
- Intermediate Machine Learning — Kaggle
- Introduction to Machine Learning — Kaggle

Volunteering

- Coding Tutor: Kofi-Annan ICT Centre of Excellence — 2018-2020
- PyHackaton Organiser: University for Development Studies (UDS) — 2017-2019
- Community Volunteer: Third Trimester Field Practical Program - UDS — 2017-2018