Ifechukwudeni Teddy Oweh

281-725-1576 teddyoweh@gmail.com Teddy Oweh teddyoweh

Education

Tarleton State University, Stephenville Texas **January 2022 – May 2025**

Computer Science & Mathematics, Con. - Artificial Intelligence & Data Science

Work & Research Experience

Apple Inc. **May 2023 – Present**

AI/ML Engineering Intern *Cupertino, California*

- Developed ensemble AI models for ecosystem optimization, developed algorithm for device quality index ranking, and proximity-based warning/crash identification, utilizing automated temporal analysis for model refinement
- Refined Legacy Apple HomeKit SQL Metric System
- Secured a position in the top 10 finalists for the Apple iContest (intern ideathon)

NASA - National Aeronautics and Space Administration **Aug 2022 – May 2023**

Research Payload Engineer *Huntsville, Alabama*

- Designed and Developed a payload system for a sub-scale rocket launched at 4600fts to execute diverse image processing operations based on received commands from a custom SDR Radio Receiver tasks during flight
- Developed real-time flight status monitoring via a custom-built UDP server, integrating data from the altimeter and gyroscope for comprehensive analysis

NAVSEA - Naval Sea Systems Command **July 2022 – Mar 2023**

Research AI/ML Systems Engineer *King George, Virginia*

- Developed ML-based algorithm for optimal weapon pairing against adversarial actions, utilizing greedy search and Markov Chains for proactive decision-making and enhanced war-fighting capabilities.
- Employed Naïve Bayesian classification to mathematically derive probabilities and validate weapon combinations, improving for automated scheduling and coordination of weapon systems

TIAER - Texas Institute for Applied Environmental Science **Jan 2023 – May 2023**

Computational Modelling Student Researcher *Stephenville, Texas*

- Refined computational models systems for environmental research, and refined a software application for estimating nutrient and sediment losses from crop and pasture lands based on land-use practices, soil types, and climatic conditions.

Tarleton State - Machine Intelligence Security and Research Lab (MISR) **February 2022 – Present**

Lead Student Researcher *Stephenville, Texas*

- Developed a Mini Batch RINDEX hybrid feature engineering algorithm for machine learning models, combining filter-wrapper techniques with feature clustering using the Rand Index cluster quality metric for optimal feature selection and computational efficiency.
- Implemented data partitioning, and distributed computing to reduce processing time

Tarleton State - Mathematics Department **May 2022 – August 2022**

Student Researcher *Stephenville, Texas*

- Integrated stochastic processes on complex networks using differential equations to create infectious disease models, calculating disease susceptibility rates and recovery probabilities, and implementing epidemiological frameworks for enhanced disease spread simulation.

Projects

NeuronIO | *Git*

- Implemented a custom Transformer neural network architecture with custom layers, backpropagation, optimizers, loss functions, and extended C shared libraries for vector store embedding operations

SLIC | *Git*

- Developed and Released a python package that optimizes client-server communication via TCP connections, reducing latency through efficient protocols and data serialization algorithms. An alternative to REST API

Afterhours

- Developed a full-stack web and mobile app to allow college students find students with same major, integrating middleware-driven HTTP APIs and WebSocket functionality with Node.js. Utilized MongoDB for data management. Implemented a cross-platform UI using React Native (mobile) and ReactJS (web).

Technical Skills

Languages/Database: Python, C++, Ruby, Scala, SQL, MongoDB, PostGres
Frameworks& Tools: Pytorch, Tensorflow, Sklearn, Tableau, Docker, Kubernetes
Frontend: Swift, ReactJs, Angular, React Native, Flutter
Backend: Nodejs, NestJS, Java, Flask, FastAPI