Ifechukwudeni Teddy Oweh

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Education

Tarleton State University (Texas A&M System), Stephenville Texas

January 2022 - May 2025

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

Work & Research Experience

Apple Inc.

May 2023 - September 2023

Software Engineering Intern

Cupertino, California

- Engineered a Python-C AI hybrid library with ensemble models for multicollinearity, targeting Apple device crash and proximity predictions
- Built a multi-threaded REST API with WEBUI for analytics and introduced the MCQI system to identify and optimize critical device failure metrics.

NASA - National Aeronautics and Space Administration

Aug 2022 - May 2023

Research Payload Engineer

Huntsville, Alabama

• Developed a payload system for a sub-scale rocket, integrating real-time flight analytics via a custom UDP server, culminating in multifaceted image processing operations at 4600fts through a bespoke SDR Radio Receiver.

NAVSEA - Naval Sea Systems Command

July 2022 - Mar 2023

Research AI/ML Systems Engineer

King George, Virginia

• Led the development of an AI/ML algorithm that uses Markov Chains, Naïve Bayesian and greedy search for automated scheduling, strategic weapon pairings, and predictive models systems in weapons systems coordination.

TIAER - Texas Institute for Applied Environmental Science

Jan 2023 – May 2023

Computational Modelling Student Researcher, Project Page

Stephenville, Texas

• Refined and converted legacy VB.net statistical model systems into a C++ codebase for Unix systems enhancing AI-driven environmental research while improving the Ruby on Rails simulation framework for sediment crop losses

Tarleton State - Machine Intelligence Security and Research Lab (MISR)

February 2022 - Present

Lead Student Researcher

Stephenville, Texas

• Designed the Mini Batch RINDEX algorithm with the RIndex cluster metric and a custom distributed computing and data partitioning system, optimizing multicollinearity handling in ML models. Achieved faster training and higher accuracy than KNFE and COMB algorithms

Projects

NeuronIO | C, Python *Git*

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

QuantX | C++, Quantitative Analysis, Market Strategies Git

• Developed C++ modules for real-time stock data collection, market analysis, AI-driven position sizing, and data insights, dynamic hedging strategies, monte carlo simulations, and slippage modeling for risk reduction and strategy enhancement.

WHOTAI | C. Python, Multithreading Git

• Developed an ensemble machine learning model for the Naija Whot card game (similar to UNO), incorporating parallelization for training corpus generation and a distributed system game simulation with the Model. The ensemble integrates a Random Forest algorithm developed from scratch with corpus vector embeddings.

Scene Query | C++, ReactJS, Python, CLIP, YOLO

• Developed a AI tool utilizing CLIP, YOLO and CIFAR100 for real-time video semantic analysis, capable of extracting and categorizing specific frames associated with desired prompts, with algorithms distributed and parallelized c++ algorithms to aid in enhancing content discovery and analysis efficiency.

Afterhours | ReactJS, React Native, NodeJS, MongoDB, Redux

• 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. Developed a mobile and web version.

Technical Skills

Languages/Database: Python, C++, C, Assembly (x86, AVR), C-sharp, VB, Ruby, Scala, SQL, MongoDB, PostGres Frameworks& Tools: Pytorch, Tensorflow, Sklearn, Tableau, Docker, Kubernetes, Caffe, Coreflow, GIT, Linux/Unix, AWS EC2/S3

Frontend: Swift, ReactJs, Angular, React Native, Flutter, TailwindCSS

Backend: Nodejs, NestJS, Java, Flask, FastAPI Other: PCB Design, Arduino, RasperryPI,