IFECHUKWUDENI TEDDY OWEH
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Education:

- Tarleton State University, Stephenville TX, Spring 2022 - Fall 2025
  - B.S. in Computer Science, Artificial Intelligence and Data Science, Honors.
  - GPA: 4.0
  - Tarleton Computer Society (President), Student Government Association (College of Engineering Congressman. Student Research Association, IEEE Tarleton Branch(Social Media Lead), Tarleton Rocket Team (Payload Engineer, Social Media and Website Lead), Tarleton Table Tennis Club (President)

Research & Work Experience:

Lead Software Engineer, Rubi Logistics (Dec 22 - Present)
Abuja FCT, Nigeria.

Led a team of software engineers to develop a mobile application for a logistics company that allows users to order and track shipments.
Designed and implemented the front end of the application using React Native, and developed an API system to handle authentication, database communication, and live geolocation tracking.

Skills applied: React Native, Redux, Redux Thunk, API design, NodeJS, MongoDB, Google Maps API, Java, Scala.

Tarleton State University, **Stephenville Texas** (Feb 22 - Present)
*Lead Student Researcher (*Electrical & Computer Science Department)

- Implemented Hybrid Feature Selection for Machine Learning Models using various statistical methods, cluster metrics, and scalers in Python.
- Analyzed and visualized the results of trained models to determine the optimal model based on classification report accuracy.
- Developed an algorithm to efficiently select the most useful features for training and developing machine learning models.
- Preprocessed and cleaned data using a combination of techniques including imputation of missing values, normalization of numeric features, and encoding of categorical variables to ensure the integrity and consistency of the data for downstream analysis and modeling

Skills Applied: Scikit-learn, Pandas, Matplotlib, Seaborn, XGBoost

Tarleton State University, Stephenville Texas (May 22 - Sept 22)

Student Researcher (Mathematics Department)

Model Of Disease Spread Using Stochastic Processes on Networks.

- Translated theoretical mathematics to pseudocode and developed algorithms to achieve predetermined functionalities.
- Applied my knowledge of Dynamic Systems Modelling to analyze data from the simulations of the spread of disease in a network graph. This included studying the relationships between the nodes and edges in the graph and analyzing the data to identify any trends or patterns in the spread of disease to optimize the model and make it more accurate.
- Worked with a team, on solving and creating and innovating mathematical and epidemiological models for discovering disease susceptibility rate and recovery probability.

Stochastic Processes Source Code

Tarleton State University, Stephenville Texas (Sept 22 - Dec 22)
Student Tutor/Grader, Intro to Computer Science.
Assisted the professor in explaining intermediate Python programming concepts to students.
Graded student labs.

Projects:

NASA USLI Rocket Payload: (Aug 22 - Present)

- Developed a payload system for image capture and processing using a Raspberry Pi camera and stepper motors.
- Utilized Python and libraries such as OpenCV, NumPy, picamera, time, and RPi.GPIO
- Implemented hardware engineering principles and used object-oriented programming for payload driver code.

Rocket Team Social Media, PR Website and Website Lead (Aug 22 - Present)

- Managed and Oversaw the entire social media presence of Tarleton Rocket Team.
- Developed the Tarleton Rocket Team Website. Used ReactJS frontend and component-based development, redux for statement management, mongodb as the database system and Nodejs to develop APIs to communicate back and forth from the database to the website.

Cheat Model: Developed a natural language processing text classification model uses various classifiers including Logistic Regression, SGDClassifier, and MultinomialNB to predict if a sentence is closely related to a student trying to ask for answers in a group chat. Developed and API service integrating the model using Python Flask.
Technical Skills: Natural Language Processing (NLP), Text Classification, Machine Learning, Data Manipulation, Data Visualization, Feature Extraction, Word Embedding. API Design and Developmemt.

Source Code: https://github.com/teddyoweh/cheat-model

Omark: Developed and published a Python library with a facial search algorithm that uses a binary search algorithm on a facial recognition model to efficiently identify faces that are absent in a dataset.
Technical Skills: Python, Image Processing (OpenCV)
Source Code: https://github.com/teddyoweh/Omark

VoiceOut: Developed a social network mobile application for the Tarleton State University student government association, featuring features and concepts from Twitter and YIKYAK.
Technical Skills: React Native, React Redux, Mongodb, Nodejs, JWT, TwilioAPI.

Beardb: Database system implementing AES encrypted versions JSON of data. Easy to access, manage and deploy remotely. Implemented a client class to effectively allow users access the data when deployed using the BeardbAPI microservice
Technical Skills: Python, JSON Parsing, AES, API handling.
Source Code: https://github.com/teddyoweh/beardb-api

BeardbAPI: Developed and Published a Python API microservice library to deploy JSON Databases Remotely using Beardb database system.
Technical Skills: Python, Flask, API Design, Development and Management.
Source Code: https://github.com/teddyoweh/beardb-api

Personal Website: Developed a personal website using ReactJs for frontend, developed and integrated backend API services using Nodejs and Monogdb, to receive and store contact information and track views.
Source Code: https://github.com/teddyoweh/teddyoweh.net

Technical Skills

- **Programming Languages:** Python, Java, C, C++
- **Web and Mobile Development:** ReactJS, VueJS, Angular, PHP and React Native
- **Backend Development:** Node.js, MongoDB, GraphQL, API development and management, HTTP protocol and request/response handling, JSON data formatting and parsing, database management and integration
- **Machine Learning:** NLP techniques (tokenization, stopword removal, stemming, lemmatization), text classification, feature extraction (TF-IDF, Word2Vec), model building and evaluation (Random Forest, Logistic Regression, Naive Bayes), neural networks (LSTM, GRU, CNN), natural language generation
- **Data Management:** Database modeling, management and API integration (MYSQL, MongoDB, PostgreSQL.
- **Hardware Engineering:** Hardware engineering principles, Raspberry Pi microcontroller
- **Image Processing:** OpenCV, image processing and manipulation.
- **Time Series Analysis:** Multivariate time series analysis, forecasting (ARIMA, SARIMA, Prophet)
- **Data Visualization:** Matplotlib, Seaborn
- **Cloud Computing:** AWS EC2 instance deployment, Google Cloud Platform, Linode.