**Uchenna Chima | 437-755-3456 | uchennaichima@gmail.com |** GitHub **|** LinkedIn **|** YouTube **| Toronto, ON**

## PROFESSIONAL SUMMARY

Detail-oriented developer with expertise in developing scalable applications using modern technologies such as AWS, ReactJS, Python, and Java. Committed to continuous learning to solve complex problems that deliver high value.

## EDUCATION

M.Sc. Applied Computer Science - Dalhousie University, Canada **Anticipated:** December 2024
B.Sc. Computer Science - University of South Florida, United States **Graduated:** December 2021

## TECHNICAL SKILLS

**Programming Languages & Frameworks:** HTML, Python Javascript, CSS, SQL, Java, ReactJS, C++, Flask
**Operating Systems & Cloud Technologies:** Mac OS, Windows, Linux**,** Figma, Git, Docker, GCP, AWS

## RELATED PROFESSIONAL EXPERIENCE

**Cloud Developer,** *Strictly by the Numbers* **Feb 2022 - Nov 2022**

- Developed and maintained the applications' front end using Jinja and Python to provide a user-friendly experience.
- Implemented a pipeline using Jinja and Python to automate data collection, processing, and storage of user data.
- Created, reviewed, and audited tutorial-based Python content.

**Research Assistant at Neuro-Machine Interaction Lab,** *University of South Florida* **March 2019 - June 2021**

- Collaborated with a diverse team of students on an Emotion Recognition with Drones Project and a Neuro-Drone project.
- Created a Python script that receives and processes video content from the Tello drone to detect user emotions.
- Co-created a Python script utilizing the Enobio and G-Tec BCI devices for EEG data acquisition.

**Cloud Developer Intern**, *Strictly by the Numbers***,** *Related Work: [Link]* **May 2020 - August 2020**

- Developed a web scraper using Python to collect seven decades' of NBA data to develop a player comparison dashboard.
- Leveraged open-source tools such as OpenCV for image-processing tasks to enhance player image data.
- Restructured storage methods within GCP, Cloud Object Storage, and BigQuery for efficient storage and data retrieval.

## PROJECTS

**Scotia Rentals: Full-Stack Web Application Using AWS Cloud Services,** *Dalhousie University* **April 2024**

*Developed "Scotia Rentals", a full-stack web application that facilitates seamless interactions between landlords and renters*

- Implemented front-end using ReactJS and Redux, and back-end in Python using Flask to handle REST API functionalities.
- Deployed front and back-end layers on AWS EC2 and Elastic Beanstalk respectively for efficient scaling and management.
- Configured AWS RDS Aurora for reliable database services and integrated AWS Backup for robust data recovery.
- Enhanced security via AWS VPC, and AWS Secrets Manager for storage of SHA-256 hashed passwords
- Utilized AWS S3 for scalable object storage

**Comparative Analysis of ML Algorithms,** *Dalhousie University* **December 2023**

*Conducted a comparative analysis of five Machine Learning heuristics: Decision Tree, Random Forest, Naive Bayes, KNN, and SVM.*

- Utilized three datasets of varying contexts & sizes (~5k, ~10k & ~500k instances) to provide a generalized solution.
- Implemented hyper-parameter tuning by using GridSearchCV to find the optimal hyper-parameters for each model.
- Applied evaluation metrics such as Accuracy, F1-Score, Precision, and Recall to assess model performance.
- Concluded that Random Forest yielded the best overall accuracy and balance between precision, and recall.

**GitCollab - An Open Source Collaboration Tool,** *Dalhousie University* **August 2023**

*Contributed with a team of 5 to develop a tool to streamline the process for developers who contribute to open-source projects.*

- Enriched User Experience by developing front-end features such as the user profile, and authentication pages using React.
- Developed and implemented the backend with Java Spring Boot to handle user data and manage project workflows.
- Enhanced reliability by developing unit tests using JUnit to affirm application logic and be validated via the CI/CD pipeline.
- Adhered to the SOLID design principles to enhance code modularity and maintainability.

**Custom SQL Database Management Application,** *Dalhousie University* **July 2023**

*Engineered a Java-based SQL application to enable users to perform database management tasks via user-inputted SQL queries.*

- Implemented user authentication with password encryption using MD5 to ensure secure access and fortify data security.
- Developed a data pipeline for loading and managing transformed data into a custom SQL database built from scratch.
- Improved user interactivity by enabling authenticated users to execute personalized DDL and DML SQL statements.