

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, Halifax, Canada
B.Sc. Computer Science - University of South Florida, Tampa, United States

Anticipated: August 2024
Graduated: December 2021

TECHNICAL SKILLS

Programming Languages: HTML, Python, SQL, Java, ReactJS, C++

Operating Systems & Cloud Technologies: Mac OS, Windows, Linux, Figma, Git, Docker, GCP, AWS

RELATED PROFESSIONAL EXPERIENCE

Cloud Developer Volunteer, *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 pipelines 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.
- Achieved high availability by employing AWS S3 for scalable object storage.
- Project Demonstration Video: [\[Link\]](#)

[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.