

ALEXANDRE GOUVEIA RODRIGUES

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EDUCATION

UNIVERSITY OF TORONTO

Sep 2018 – Jun 2023

BASc in Electrical and Computer Engineering – Minor in Business and Artificial Intelligence

EXPERIENCE

THOMSON REUTERS | Software Developer Intern

Sep 2021 – Sep 2022

- Automated developer onboarding processes by developing RESTful APIs in C# and leveraging cloud services such as AWS Lambda, Amazon Cognito, and Amazon SES, significantly reducing manual effort and optimizing workflows.
- Built an ASP.NET Core web application with Angular, integrating OAuth to enable developers to test authorization flows, accelerating development times and enhancing product reliability.
- Actively contributed to Agile methodologies, frequently leading daily stand-up meetings, sprint planning sessions, and retrospective discussions to drive team productivity and collaboration.

AMAZON | Software Developer Engineer Intern

May 2021 – Aug 2021

- Led the development of a mobile web feature using React and Redux to help advertisers visualize campaign performance, boosting user engagement and conversion rates by 10%.
- Conducted comprehensive design reviews, including User Acceptance Testing (UAT) and User Interface (UI) tests, ensuring an optimal user experience and successful release of a bug-free feature.
- Evaluated the impact of the mobile web feature on user engagement and load times using Weblab, which revealed widespread adoption and minimal latency, prompting the feature's permanent integration into Amazon's website.

PROJECTS

BLOCKCHAIN-BASED ELECTRONIC HEALTH RECORDS (EHR) SYSTEM

Sep 2022 – Apr 2023

- Analyzed the Hyperledger Fabric framework, focusing on the blockchain's components, architecture, transaction flow, and chaincode to simulate real-life exchanges of EHRs between healthcare organizations and stakeholders.
- Developed 16 chaincode functions in JavaScript to validate transactions within the blockchain network, employing the AES and SHA-256 cryptographic algorithms to protect sensitive data.
- Architected a RESTful API with 14 endpoints using Node.js and Express to integrate chaincode functions with web applications, implementing JSON Web Tokens (JWT) for secure and controlled blockchain interactions.

DEEP LEARNING MODEL FOR PREDICTING SONG POPULARITY

Jan 2021 – Apr 2021

- Built and trained an Artificial Neural Network (ANN) model using PyTorch to predict song popularity from Spotify's API data, achieving a 55% testing accuracy and surpassing a decision tree baseline by 10%.
- Processed and normalized data from a Kaggle dataset of 174,000 songs using NumPy, ensuring a balanced and unbiased class distribution to increase model training speed and accuracy.

GEOGRAPHIC INFORMATION SYSTEM (GIS) SOFTWARE

Jan 2020 – Apr 2020

- Programmed a GIS software application in C++, using the OpenStreetMap API and EZGL Graphics & GUI Library to visualize and resolve travel and optimization problems on global city maps.

SKILLS

- Languages:** ARM Assembly, C, C#, C++, CSS, HTML, JavaScript, Python, PostgreSQL, TypeScript
- Technologies:** AWS, Angular, Docker, Expo, Express, Figma, Flask, .NET, Node.js, NumPy, PyTorch, React, Redux
- Developer Tools:** Confluence, Git, Jira, Postman, Visual Studio, Visual Studio Code, Swagger