Andrew Chukwukaodinaka Arochukwu

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SKILLS

Programming Languages: C, C++, Python, Racket, Java, GDScript, JavaScript, R
Frameworks and Technologies: Git, Unix Shell, HTML/CSS, REST APIs, Latex, Flask, BeautifulSoup

EXPERIENCE

Ericsson, Ottawa, Ontario 05/2023 – 08/2023
Software Development (Co-op)

- Developed API to add, delete and update data on tests runs, test cases, testing hardware devices and software versions on the test database.
- Designed and developed an application that creates reports on test runs and testing progress, the report generated can be automatically shared with testers and team leads.
- Designed and implemented a thorough testing plan using PyTest for an application which was developed by my team members which collected data on hardware devices used by the team to run test suites.
- Served as the scrum master for team, where I was responsible for hosting sprint planning meetings, daily scrum meetings, onboarding new team members and aiding team members in solving issues they experienced while working with tickets.

Ericsson, Ottawa, Ontario 01/2023 – 04/2023
Software Development (Co-op)

- Designed and developed application to streamline creation of Grafana Dashboards and adding annotations to dashboards, which reduced the time take to create annotations and dashboards by at least 32%.
- Demonstrated how to use the Grafana Dashboard application to 50+ personnel.
- Developed and implemented a thorough testing plan for the application using PyTest to guarantee optimal quality and user experience for application users.
- Created databases to replace Excel sheets which were used by team to store data on tests run, test cases, testing hardware devices and software versions, this reduced time taken to query data by at least 20%.

University of Waterloo, Waterloo, Ontario 09/2022 – 12/2022
Undergraduate Student Researcher

- Analyzed the relationship between student assessment scores and study times in first month of course to determine if students would drop a course.
- Developed a model that would predict with 67% accuracy whether students would drop a course based on data from the first month of the course.
- Presented my findings to the leadership team at digitalEd – the company that offers digital education tools used by the University of Waterloo – and professors.

PROJECTS

Hippo Stock (Link: Hippo Stock**)** 2022

- Built a fully functional web application for trading stocks with fake currency, using **SQL**, **Bootstrap**, **HTML** and **Flask**.
- Designed a news feed page for news of stocks owned, pages to view stock data and admin pages for CRUD operations.
- Implemented ability to create new users with persistent accounts unless deleted.
- Developed a feature that allows users to make friends, through which they can see the stocks that their friends own.

Sudoku API (Link: Sudoku API) 2021

- Developed an API that can solve and create sudoku boards and also verify that a board has a solution using **Flask**.
- Created a web page for the documentation of the API, that explains how to make API calls, using **Bootstrap**.
- Added the API to RapidAPI, through which it has been used by over 200 users.

Watopoly 2022

- Designed a rendition of the classic Monopoly game that is based on faculties and buildings in the University of Waterloo.
- Developed multiplayer game, using the **C++** programming language.
- Implemented features such as jail swapping with other players and debt binding other players.

Apple to Spotify Playlist (Link: Github Repo) 2021

- Created a simple script using **BeautifulSoup** and **Python**, to create a Spotify playlist from an Apple Music playlist.
- Made use of Spotify API to make created playlist a private playlist on the users Spotify account.

EDUCATION

University of Waterloo, Waterloo, Ontario 09/2021 – Present
Bachelor of Computational Mathematics

- **Relevant Coursework:** Functional Programming, Object Oriented Programming, Calculus, Probability, Statistics, Combinatorics, Linear Algebra, Logic and Computation, C, C++, Racket, R
- **GPA:** 3.8/4