Brennan McDonald

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EDUCATION

UNIVERSITY OF OTTAWA
B.Sc. Major in Computer Science   Graduated December 2020
Minor in Economics

SKILLS

- **Programming Languages:** Javascript, Java, Ruby, SQL, Python, C/C++, C#,
- **Frameworks:** React & NextJS, Vue & NuxtJS, Android, .NET, Jest, JUnit
- **Other Technologies:** AWS, Linux/Unix, Docker, Kubernetes, GIT

EXPERIENCE

AMAZON INC.   Vancouver, Canada
Software Development Engineer I   February 2021 - Current
- Worked on the "Configurable Workflows" team which aimed to create a service to automate the progression of potential candidates and new hires.
- Created and owned an applicant to render custom graphs, written in **React**.
- Tested code with unit and integration tests using **JUnit**.
- Worked regular oncall shifts, solving issues with production services efficiently.

AMAZON INC.   Vancouver, Canada
Software Development Engineer Intern   June 2020 - August 2020
- Researched and evaluated different tooling options for my project.
- Parsed complex workflows into a graph and used **React** with **D3** to visualize the parsed workflows.
- Tested code with unit and integration tests using **Jest** and **Mockito**.
- Kept accurate documentation of all steps taken in order to streamline future development.

AMAZON INC.   Vancouver, Canada
Software Development Engineer Intern   June 2019 - August 2019
- Read through internal codebases and libraries to find a the best service for the project.
- Increased my team's services metrics collected by over 100,000 data points.
- Designed and created easy to access dashboards for my team's global services.

SSHRC-CSRH   Ottawa, Canada
Software Developer   March 2018 – June 2019
- Maintained the back-ends of several government websites and services in **C#** and **.NET**.
- Created a **React Native** app for managers and directors to use as reference material at conferences.
- Performed data analysis and created business metrics from several **SQL** databases.

PROJECTS

NERDLE   VUEJS & NUXT
nerdle.brennan.sh/
- Nerdle is an open source implementation of the popular guessing game "Wordle", with an identical word list and exactly matching letter highlighting algorithm, it serves as an exact clone to the original game.
- Written in **Javascript** using the **React** framework for rendering.

GARLICOIN   C++ & NODEJS
garlicoin.io
- Garlicoin is a satirical cryptocurrency developed by a community of a handful of Reddit members.
- Reaching a maximum market cap of over $1.5 Million USD and a 24h volume of over $50,000 USD .
- Based off of the Litecoin sourcecode with a modified proof of work algorithm called "allium".
- Written to be resistant to ASIC miners and allowing everyone to mine with equal opportunity.

PTPMRR   JAVA & CLOUDSIM
github.com/BrennanMcDonald/PtPMRR
- Price to Performance Modified Round Robin (PtPMRR) is an algorithm to distribute cloud tasks.
- It uses a price and performance ratio to identify the best VM to run a specified task on.
- Written and tested in **Java** using **CloudSim** for the simulation models and tests..