Oditha Amarasinghe

416-858-9496 | ogamaras@uwaterloo.ca | Github | Personal Portfolio

Technical Skills

Languages and Technologies: React.js, Python, JavaScript, C/C++, Bootstrap, Node.js, Git, MySQL, MongoDB, LINQ, PostgreSQL

Experience

UW Blueprint   May 2023 – Present
Full Stack Developer | React.js, Python, Postgres, REST   *Waterloo, ON*

- Developed a robust platform to facilitate streamlined operations for **Algoma's Children's Aid Society**, achieving enhanced efficiency through the migration of legacy spreadsheets and the implementation of advanced data organization features.
- Implemented a **global user search** feature by integrating custom endpoints within the internal API working in conjunction with Postgres, enabling rapid access to data from **hundreds of users**.
- Engineered the front-end presentation of **users' search results** using custom React components and useState hooks, providing a dynamic and responsive environment for users.
- Crafted a **scalable** front-end skeleton for the **user dashboard**, adhering to **relevant React design principles** which allowed for effortless integration of additional functionalities by future developers.

HealthCare Systems R&A   Jan 2023 – March 2023
Machine Learning Engineer | Python, Sklearn, SciKit, TensorFlow   *GTA, ON*

- Engineered a **visually interactive game** utilizing a machine learning model trained to classify user movements, resulting in the achievement of a **project milestone** two weeks ahead of schedule.
- Implemented an algorithm for extracting and evaluating a set of new data features, resulting in a **40% improvement in the classification accuracy** of the model.
- Developed a **hybrid neural network architecture**, actively harnessing the potential of both LSTM and CNN layers, resulting in significant accuracy improvements across **all classes** of the data set.

Manulife   May 2022 – Sept 2022
Data Engineer | Python, Devo, LINQ, SQL   *GTA, ON*

- Effectively harnessed the Devo Platform to **filter and refine** extensive data logs, resulting in a notable **10% reduction** in redundant metric alerts.
- Constructed an **automation tool** for seamless data transfer between **AWS S3** and **Azure Blob storage**, ensuring the safety of **thousands of archived data logs**.
- Refined the performance of the Devo platform by **30%** through optimized **LINQ scripting**.

Projects

Cutscene   September 2023
React.js, Firebase, REST API | *https://github.com/odis43/Cutscene*

- Developed a user-friendly **game review platform**, featuring **real-time search suggestions** for instant access to relevant game information.
- Seamlessly integrated Firebase Authentication to ensure **secure user accounts** and personalized experiences.
- Facilitated the streamlined creation, customization, and effective management of individual game collections by leveraging **real-time data synchronization**.

Drawdle   April 2022
React.js, Bootstrap, REST API | *https://tinyurl.com/drawdle*

- Spearheaded the developement of a full-stack web application for evaluating user-generated drawings, incorporating **React** and **Node.js**, featuring the **BLIP API** for advanced image captioning.
- Utilized React class and function-based components to **elevate user engagement** by incorporating various **interactive features**, such as dynamic hovering events.

Command-Line Chess   Novemeber 2022
C++ | *https://tinyurl.com/chessCLI*

- Designed and implemented a fully functional chess game in C++, following **OOP** and **RAII principles**.
- Effectively leveraged the **Observer design pattern** to enable efficient communication and updates between different game components, reinforcing the project's object-oriented foundation.
- Accommodated rule modifications and additional players by extending the OOP-based architecture, ensuring **adaptability** to different chess experiences.

Education

University of Waterloo   Sept. 2021 – April 2026
Candidate for Honours Bachelor of Computer Science, Business Specialization   *Waterloo, ON*