Ryan Chwiecko

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Education

Western University **Sep. 2022**
H.B.Sc Computer Science & Software Engineering *London, Ontario*
- GPA: 4.2 / 4.5

Relevant Coursework

- Data Structures
- Software Design
- Algorithm Analysis
- Database Management
- Machine Learning
- Web Development
- Systems Programming
- Computer Architecture

Technical Skills

Languages: Python, Java, C, HTML/CSS, JavaScript, TypeScript, MySQL
Developer Tools: VS Code, Eclipse, PyCharm, Notepad++
Technologies/Frameworks: Unix, GitHub, LaTeX, React, TailwindCSS, AngularJs, Pandas, Numpy, SciKitLearn

Experience

Predictify Pro **Sep. 2023 – Present**
Full-Stack Developer *London, Ontario*
- Spearheaded the development of front-end architecture and user interfaces utilizing the **React** framework, **TailwindCSS** and **TypeScript**
- Collaborated with cross-functional teams to link front-end design with backend functionalities utilizing the **Git** version control system.
- Co-led the development of an **LSTM** machine learning algorithm that will predict housing prices with the use of the **Tensor Flow** framework.
- Designed a secure API in **Python** responsible for querying and storing user information in **MongoDB**, while ensuring effective **Encryption Algorithms** protected sensitive user information.

Edumasters **Aug. 2023 – Present**
Math & Computer Science Tutor *London, Ontario*
- Tutored students on various mathematical subjects such as **Calculus** and some fundamental **Linear Algebra** concepts, elevating the student's knowledge and confidence in those subjects.
- Educated students on **Java** with an emphasis on **Object Oriented Programming** and intermediate **Python** enhancing and critical thinking in the students.
- Elevated the student's grades in the specified subjects by **35%**

Projects

Web-Based To-Do List | *React, Typescript, Vite* **Nov. 2023**
- Developed an interactive web-based to-do list application using **Vite**, React and TypeScript, **enhancing user productivity** by providing a seamless and intuitive task management interface.
- Implemented **React** Hooks in the to-do list application, greatly simplifying and improving code maintainability. This approach streamlined state management, leaving me with a more efficient and straight-forward code-base.

Maze Solver | *Java, Java Swing, Eclipse* **Dec. 2022**
- Designed and implemented a maze solver application in **Java**, leveraging a **priority queue** data structure to efficiently navigate through complex mazes. This optimized data structure significantly improved the algorithm's speed and allowed for quicker maze solutions.
- Enhanced the project's functionality by incorporating object-oriented principles, resulting in a modular and maintainable codebase. This design approach facilitated future modifications and feature additions to the maze-solving algorithm.
- Utilized **Java Swing** to create GUI to display the Maze with a variation of tiles and to draw the path that was taken through the maze.

X+ Game | *Java, JavaFX, Eclipse* **Nov. 2023**
- Optimized game performance through the design of a custom **hash table** for efficient game state tracking and move evaluation. This innovative approach to data management reduced computational load and improved response times, leading to a smoother gaming experience.
- Implemented tree-based computations and **separate chaining** in hash tables, streamlining the game's core functionality and enhancing player satisfaction through improved algorithm efficiency.