Robert Yan

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Skills

- **Programming Languages:** Python, C, C++, C#, Java, Node.js, Javascript, Typescript, React, HTML, CSS, Racket, Scheme
- **Tools:** Git, Unix / Linux (Shell), Vite, OOP, Functional Programming, Visual Studio, Eclipse, Unity
- **Skills:** Communication, Problem Solving, Self-Motivated, Teamwork, Time Management

Experience

President of the Martingrove Computer Science Club September 2022 - June 2023

- Increased participation by establishing a coding contest series for the competitive programming platform *DMOJ*.
- The final contest, open to the public, had **82** participants and featured 5 problems.
- Authored problems, designed marketing material, and led testing efforts with an international team from *DMOJ*, for **3** contests over the school year.
- Wrote sample solutions for each problem in **Java**, **C++**, and **Python**.

Video Game Trading Bot December 2020 - March 2021

- Converted an inventory estimated at **$36USD** to **$78USD** (**116%** ROI), in **3** months.
- Using **Node.js** and the **steam-user** package to access Steam's API, automatically traded virtual items in the game *Team Fortress 2*.
- Leveraged the **cheerio** and **puppeteer** library to accurately price items using web scraping.

Projects

Portfolio Website Made Using React January 2024 - February 2024

- Made using industry standard practices, such as **reusable components**.
- Renders content from data allowing for efficient updating of website information.
- Effectively used **CSS** to give the website a modern look.

Rogue-Like Game in Python May 2023 - June 2023

- Developed a custom game engine using the **Pygame** framework to streamline development.
- Implemented **pathfinding** to allow enemy AI to traverse randomly generated levels.
- Designed a power-up system which allowed different items to simultaneously apply their effects.

Arduino Combination Lock Unlocker October 2022 - November 2022

- Improved opening times to **30 minutes** by developing an algorithm to find combinations.
- Created using a stepper motor managed by an **Arduino Microcontroller**.
- Achieved high precision using a custom motor driver implemented directly on the **Arduino**.

Education

University of Waterloo

Candidate for Bachelor of Computer Science

September 2023 - April 2028 (Projected)