Robert Yan

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Skills

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

Projects

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.

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**.

PLC Model Assembly Line Material Sorter   January 2023 - February 2023

- Used an industry standard **PLC** running **ladder logic** to quickly detect and sort materials.
- Engineered using pistons controlled by solenoid valves and **pneumatic logic**.
- Built cheaply with clever parts usage and programming techniques.

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**.
  Note: Used only for <u>LEGAL</u> purposes.

Tetris Clone Made In C#   March 2022 - April 2022

- Developed a clone of Tetris using **Monogame**, a framework to make games using **C#**.
- Made custom assets, artwork, and designed the UI for the game.

Education

University of Waterloo
Candidate for Bachelor of Computer Science
September 2023 - April 2028 (Projected)