

Caleb Tiger Choi

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SKILLS

Java, C, C++, Arduino C, HTML, CSS, Linux, Git, and Nginx

PROJECTS

- **REMOTE MONITOR [JAVA]**
 - A centralized, real-time LAN keylogger/screenviewer that allows for monitoring of multiple computers
 - Connections implemented by **Java TCP/IP sockets** and handled in **multiple threads**
 - Uses the **jnativehook** library for global input, and the GUI is built with the **Java Swing** library
- **CLOCK SUITE [ARDUINO, C, C++]**
 - A 24-hour adjustable clock displayed through binary LED indicators and an LCD
 - Includes stopwatch and timer functionality, which can run concurrently with the global clock
 - Runs off the **Arduino MEGA**, using internal delays for synchronization to an accuracy of **±4 seconds** per hour
- **CHINESE CHECKERS CLIENT [JAVA]**
 - An AI Chinese checkers client that competes against 5 opponent AIs over a LAN tournament
 - Created the AI, implementing a dynamic **depth first search** algorithm which won first place in **5/9 rounds**
- **RHHS EVENT PLANNER TOOL [JAVA]**
 - Organizes registration, table seating, and food preferences, for any social event
 - Implemented the **modular data system**, allowing for customizable food, table, and ID options
 - Created the **file handling**, and the **instant updating search** functionality
- **CALEBCHOI.ME [HTML & CSS]**
 - Personal portfolio, built from scratch using HTML and CSS, and runs on **Nginx**
 - DNS and backend is personally managed through an Ubuntu VM on **Google Cloud Engine**

WORK & ACTIVITIES

- **RHHS COMPUTER SCIENCE CLUB EXECUTIVE (August 2015 – June 2017)**
 - **Ranked 1st** in the McMaster University Science Olympics software challenge
 - **Provincial finalist** in the 2016 ECOO team programming competition
 - Helped organize, manage, and teach the Python and Linux classes of around 20 people
- **KID'S GREAT MINDS (July 2013 – August 2013)**
 - Taught and tutored basic Java and Scratch programming at a summer camp

EDUCATION

- **UNIVERSITY OF WATERLOO (September 2017 – April 2022)**
 - Candidate for Bachelor of Software Engineering (BSE)
- **RICHMOND HILL HIGH SCHOOL (September 2013 – June 2017)**
 - Received a 5 on the AP Computer Science exam

INTERESTS & ACTIVITIES

Programming, composing music, cooking, table tennis