Caleb Tiger Choi

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SKILLS

Languages: Java, C++, C, Bash, Golang, SPARQL, Turtle (RDF), HTML, CSS,
Platforms: Linux, Git, SVN, Maven, Jenkins, JUnit, Tomcat, Nginx, Arduino, BACnet, JIRA

WORK & EXPERIENCE

THOUGHTWIRE CORPORATION [AUTOMATION DEVELOPER] (May 2018 – August 2018)
- Maintainer of the automated regression testing framework, leading major API overhauls to the testing infrastructure, reducing **4 automation modules into 1**, and centralizing the **REST API**
- Created bash/Golang scripts & Jenkins applications to streamline the CI/CD pipe, including functionality for **automated deployment of test environments** and **test resource cleanup**
- Ensured JUnit test stability, reducing the chronic snapshot test failure rate **by ~11%**, and writing/investigating automated tests for platform changes

PROJECTS

REMOTE MONITOR [JAVA]
- A real-time subscriber-model LAN keylogger/screenviewer that allows for monitoring of multiple computers,
- Connections implemented by **TCP/IP sockets,** handled in **concurrent 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, which optimizes distance over a **decision tree (DFS)**, winning first place in **5/9 rounds**

RHHS EVENT PLANNER TOOL [JAVA]
- Organizes registration, table seating, and food preferences, for **any social event**
- Implemented the 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 without templates using HTML and CSS, and runs on **Nginx**
- DNS and backend is personally managed through an Ubuntu VM on **Google Cloud Engine**

EDUCATION

UNIVERSITY OF WATERLOO (September 2017 – April 2022)
- Candidate for Bachelor of Software Engineering (BSE)
- Dean's Honours List for terms 1A & 1B

RICHMOND HILL HIGH SCHOOL (August 2015 – June 2017)
- Helped organize, manage, and teach the Linux and Python classes of around 20 people, as a Computer Science Club executive
- **Ranked 1st** in the McMaster University Science Olympics software challenge
- **Provincial finalist** in the 2016 ECOO team programming competition
- Received a **5/5** on the AP Computer Science exam

INTERESTS & ACTIVITIES

Cooking, composing music, table tennis, and travelling the world!