Charles W. Wong

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 charliewwong
in Charlie Wong

Education

University of Waterloo
BASc Candidate | Class of 2026
Computer Engineering

Skills

Languages
C++, C#, C
JavaScript, QML, HTML/CSS
Python, Lua, Assembly, VHDL

Frameworks, Tools & Platforms
Azure DevOps, Microsoft Dynamics
Git, Qt, Bootstrap, Wordpress
OpenFrameworks, JUCE

Certification
Cisco IT Essentials

Design & Organization
Adobe Creative Cloud
Asana, Blender
CucumberStudio, Figma

Relevant Courses

Signals and Systems
(currently enrolled)

Embedded Microprocessor Systems
(currently enrolled)

Algorithms and Data Structures

Awards/Achievements

Colonel Hugh Heasley Engineering Scholarship *- 2021-Present*
Awarded to outstanding students entering first year engineering, who continue to maintain an average of 80% or higher

University of Waterloo President's Scholarship of Distinction *- 2021*
Awarded to students with admission average of 95% or higher

SHAD Fellow *- 2019*

Experience

National Research Council
Developer | Azure DevOps, C++, JavaScript, Microsoft Dynamics
Sept-Dec 2022   Ottawa, ON
- Developed CRM solutions for the NRC Industrial Research Assistance Program Portal, CanExport, and SONAR360 programs, reaching 8,000+ SMEs across Canada
- Designed and implemented client-requested features
- Spearheaded testing and data-generation processes for QA team, alongside comprehensive documentation

Monogram Creative Console
Software QA | Git, JavaScript, Lua, QML/Qt, Adobe CC, Asana
Jan-April 2022   Kitchener, ON
- Evaluated company software integrations with new releases of industry-leading editing software
- Improved test execution time by 5% through enhancement of quality and organization of test cases
- Identified 50+ software bugs with Adobe Creative Cloud integrations and new feature implementations, planned and executed software solutions
- Designed and implemented UI to improve user customizability and utility of Orbiter Module

Turak Research Group | McMaster Engineering Physics
Research & Developer Intern | C++, Bash
Jul-Aug 2021   Hamilton, ON
- Utilized Sharcnet supercomputer network and GranSim program to simulate and analyze the morphologies of self-assembling organic molecules
- Refactored simulation code, recovered and updated programs for use with current equipment
- Developed procedural testing methods

Projects

Equalizer Audio Plugin | C++, JUCE
- Implemented frequency response curve visualizer
- Created peak adjustment, high-pass and low-pass filters with customizability of quality, slope, and frequency
- Designed functionality as both standalone and VST plugin for DAWs

Secret Radio Safe | C, STM32
- Prototyped microcontroller combination safe
- Designed and assembled hardware and radio housing
- Programmed I/O logic, displays, sounds, and motors

Word Search | Java
- Utilized breadth-first search algorithm for crossword game