

Denton Liu

Software Engineering

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🌐 dentonliu.me

in DentonL

🔗 Denton-L

Technical Skills

- Proficient in Java, C, C++, Python and various assembly languages.
- Enjoys working in and understanding low-level environments such as embedded systems.
- Familiar with building websites using HTML5, CSS3 and JavaScript.
- Adept with Linux and common applications such as Git and GDB.

Projects

- LAByrinth
- Created a labyrinth game using an Arduino-like microcontroller with C.
 - Utilised both serial and parallel I/O to communicate with peripherals.
 - Wrote an abstraction layer over hardware in order to simplify higher-level development.
- Breadboard Computer
- Created a computer based on the 6502 processor on a breadboard using only ICs (integrated circuits).
 - Programmed a version of Pong using 6502 assembly.
 - Utilised an EEPROM programmer to load an assembled hex image.
- Java-Webchat
- Employed RMI (Remote Method Invocation) to communicate between server and clients.
 - Implemented a user database which took precautions to secure user data using salted hashes.
 - Made use of object-oriented programming principles in order to create a cleaner codebase.

Experience

- 2014 **IT Volunteer**, *Administration*, Newcomer Centre of Peel.
- Created tool to backup user data using Windows Batch scripting.
 - Acted as system administrator.
 - Provided technical assistance to employees.
- 2010–2015 **Cadet Warrant Officer**, *Royal Canadian Air Cadets*, 700 David Hornell VC Squadron.
- Planned and organised events, such as training weekends, as a member of a team.
 - Captained the drill team consisting of the squadron's most successful cadets.
 - Commanded over 120 peers during graduation parade of Drill and Ceremonial Instructors Course.

Education

- 2015–2020 **Candidate for Bachelors of Software Engineering**, *University of Waterloo*, Waterloo, Ontario.
Cumulative GPA: 3.85
- 2011–2015 **Ontario Secondary School Diploma**, *Martingrove Collegiate Institute*, Toronto, Ontario.
Academic Average: 95.0%

Awards and Scholarships

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| 2015 | Sandford Fleming Foundation Programming Competition Award | Second Place |
| 2015 | Dean's Honours List at University of Waterloo | Term Average of 87% or Greater |
| 2014 | University of Toronto High School Design Competition | First Place |

Interests and Hobbies

- Plays cello, double bass and piano.
- Avid unicyclist.
- Fanatical user of \LaTeX .
- Proud Vim user.
- Runs Arch Linux on personal computer.