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| **Wang Wang** | github.com/h397wang  Mobile: 613-890-1337  Email: wang.wang@uwaterloo.ca | | | | | | |
| Skills Summary | | | | | | | |
| **Programming Languages:** Assembler, C/C++, C#, Java, MATLAB, Python, VHDL  **IDEs:** Visual Studio, Eclipse, Keil, Unity  **Tools/Frameworks:** Android Development, Arduino, Git, OpenCV, MEX, Raspberry Pi  **CADS:** AutoCAD, DipTrace, Multisim, Fritzing, SolidWorks | | | | | | | |
| Education | | | | | | | |
| University of Waterloo, Waterloo, ON  Bachelor of Applied Science, Computer Engineering | | Spring 2020 | | | | | |
| Dean’s Honours List | | Winter 2015, Winter 2016 | | | | | |
| Work Experience | | | | | | | |
| Firmware Engineering, Infinera, Ottawa, ON | | | | Winter 2017 | | | |
| * Optimized (C++) source code implementations to reduce runtime (up to 30%) and improve accuracy (up to 10 dB in SNR) of fixed-point fast Fourier transform functions * Used Eclipse-based IDE hardware simulator to create and automate Makefile based unit tests * Created Visual Studio projects to build MEX files to allow for usage and testing of C++ programs in MATLAB | | | | | | | |
| Puzzle Engineering, Escape Games Canada, Toronto, ON | | | | Spring 2016 | | | |
| * Designed, programmed, built, debugged, and installed Arduino based embedded systems (e.g. keypad sequencers, electromagnetic locks, RFID readers, and illuminated pressure plates) | | | | | | | |
| Project Experience | | | | | | | |
| [RoboHacks](https://github.com/h397wang/SpaceArm) | | | Winter 2017 | | | | |
| * Used the Leap Motion Python API to control a robotic arm based on hand positioning and gestures | | | | | | | |
| [Hack the North](https://github.com/h397wang/htn-tinderbot) | | | Fall 2016 | | | | |
| * Created Python script to automate the selection of Tinder users based on facial recognition | | | | | | | |
| [Android Chess App](https://github.com/h397wang/Android-Chess-Application)lication | | | Spring 2016 | | | | |
| * Created a fully functional chess game for Android mobile (Java) with user friendly features such as tile highlights, unlimited undos, resets, automatic saving and reloading of game states | | | | | | | |
| [Interactive Floor Display](https://github.com/h397wang/Interact-Floor-Display) | | | | | Spring 2016 | | |
| * Manufactured, assembled and wired hardware for 160 sq. ft. of illuminated pressure plates * Setup I2C bus between Pi master and Arduino slaves to transmit color and switch states * Installed and interfaced Arduino Ethernet clients with Rasperry Pi LAMP server | | | | | | | |
| [Personal Face Filter](https://github.com/h397wang/Super-Saiyan) | | | Spring 2016 | | | | |
| * Program superimposes the modified mask image onto the region of interest containing the face * Implemented basic image processing concepts with OpenCV and C++ | | | | | | | |
| [University of Toronto Hacks](https://github.com/h397wang/SpaceTTT) | | | | | | Winter 2016 | |
| * Created a 4x4x4 game of Tic-tac-toe in Unity (C#) that uses Leap Motion’s hand motion and gesture recognition to provide a 3D interactive user interface | | | | | | |