Huangshan Xu

**(416) 837-0811** | hs2xu@uwaterloo.ca | **https://github.com/Jerrxu** | BASc in Computer Engineering

# Technical Skills

- Fluent software languages: Java, Python, C, C#, C++, Matlab

- Web/Server-based development: PHP, CSS, JavaScript, PL/SQL

- Experienced with Android dev w/ Android Studio and Eclipse, created numerous apps for projects/school

- Circuits experience: used oscilloscope, function gen., SPICE software to analyze non -linear circuits

- Hardware programming: used Assembly ARM, VHDL, C to program KEIL, Arduino, TI, FPGA boards

- Programming creativity: created lightsaber virtual -reality game using Myo, Oculus Rift, and WiiMote

# Professional Experiences

|  |  |
| --- | --- |
| Agile Test Engineer *Pivotal Labs Toronto*  May - August 2016 | - Verified weekly stories on various projects in an Agile development environment  - Learned to design Android automated tests while practicing test-driven development  - Pair-programmed Espresso testing scripts for mobile apps and desktop websites  - Used exploratory testing to find major defects, reported bugs with detailed repro steps  - Worked on multiple projects on a weekly basis to deliver high quality builds to clients |
| Research Assistant *Institute of Quantum Computing, UW*  January - April 2016 | - Assembled Czerny-Turner monochromator under UW professor supervision  - Designed plastic parts with Autodesk Inventor, designed components assembly  - Soldered, programmed Arduino to use w/ Adafruit Motor Shield, stepper motor  - Printed parts with 3D printer  - Drew up weekly reports and collaborated smoothly with team members |
| Applications Developer *City of Toronto*  Jan - Dec 2015 | - Created 3 server-based applications using Oracle APEX, Javascript, and PL/SQL  - Optimized SQL queries and application workflows for Toronto Water employees  - Debugged numerous applications and updated application documentations  - Provided technical service to Toronto Water and other City of Toronto facilities |
| HuVAC TechnicianApprentice Jerry’s Refrigeration  Apr - Aug 2014 | - Worked as a technician-in-training, learning under HVAC-licensed technicians  - Installed, repaired, and maintained refrigeration machinery and cooling units  - Assessed and connected wiring with efficiency; checked pressure gauges  - Inspected refrigeration equipment, WHMIS-trained |

# Projects

Java Programming Sept 2012 – Present

- Created numerous Android Applications with Eclipse and Android Studio

- Collaboratively developed Java programs, simulations, and 2D games with Greenfoot, Visual Studio

- Effectively completed large-scale projects while maintaining strong team communication

Waterloo Satellite Team Sept 2014 – Present

- Developing power management system for the Canadian Satellite Design Challenge nanosatellite

- Working alongside power team to design printed circuit boards using Eagle

- Collaborating with members of payload, ion thruster, and propulsion teams to optimize board layouts

# Education

*Candidate for BASc in Computer Engineering, University of Waterloo, Waterloo, ON* Sept 2014 - Present

- Courses: Algorithms, Data Structures, Electronic Circuits, Digital Computers, Embedded Microprocessor Systems

- Year 1 Average = 88%

# Other Experiences

- **HackWestern 2015**: *Jedi Arena*, successful Virtual Reality lightsaber game with Myo, Oculus Rift, Unity 5

- **Executive, Mentor**: Computer Science and Robotics, Instructional Science Association (2013 - 2014)

- **Programming Mentor**: taught Java in Computer Science and Robotics Club (2013 - 2014)

- **ARCT in Violin Performance**: *Royal Conservatory of Music*, highest honour in Canada; 12 years+ experience

- **Concertmaster**: *Trudeau Symphony Orchestra*, taught students, annual concerts had 500+ attendees each