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## PROFESSIONAL

### Pivotal Labs

*Software Developer*

Jan - Apr 2017

- Developed 3 iOS apps for a Fortune 10 client using Swift and Objective-C++
- Completely redesigned a navigation applet and eliminated over 90% of navigation bugs
- Led the initial research and development of a concierge reservation applet
- Faithfully used test-driven development while pair-programming with mature full-times
- Created and optimized Concourse CI/CD pipelines to decrease testing time by 30%

### Pivotal Labs

*Test Developer*

May - Aug 2016

- Verified daily stories on various projects in an Agile development environment
- Pair-programmed Espresso and Earl Grey tests for Android and iOS applications
- Learned to design Android automated tests while practicing test-driven development
- Worked on multiple projects on a weekly basis to deliver high quality apps to clients

### Institute 4 Quantum Computing

*Research Assistant*

Jan - Apr 2016

- Assembled Czerny-Turner monochromator under UWaterloo professor supervision
- Self-taught 3D CAD with Autodesk Inventor; data analysis & visualization with Matlab
- Designed and printed >20 plastic components and assemblies with Inventor
- Soldered and programmed Arduino & Motor Shield to control multiple stepper motors
- Drew up weekly reports and collaborated smoothly with team members

### City of Toronto

*Application Developer*

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

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## TECHNICAL

- Web/Server-based development experience with PHP, JavaScript, SQL
- Collaboratively developing UNIX shell emulator using pure Javascript/HTML/CSS: [jerrxu.github.io](http://jerrxu.github.io)
- Experienced with iOS and Android development, worked on numerous apps for school, work, and personally
- Hardware programming: used Assembly ARM, VHDL, and C to program microcontrollers and FPGA boards
- Circuits experience: used oscilloscope, function generator, and SPICE software to analyze non-linear circuits
- Creative software: created lightsaber virtual-reality game using Myo, Oculus Rift, and WiiMote

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## 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 Nano-Satellite Team

Sept 2014 – Present

- Developing power management system for the Canadian Satellite Design Challenge nanosatellite
- Working alongside power systems team to design and fabricate printed circuit boards using Eagle
- Cooperating with members of payload, ion thruster, and propulsion teams to optimize board layouts

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## EDUCATION

**BASc in Computer Engineering** - University of Waterloo, Class of 2019

- **Courses:** Algorithms, Compilers, Data Structures, Digital Computers, Electronic Circuits
- **Programming Mentor** of Computer Science and Robotics Club

**HackWestern, NASASpaceApps, TerribleHacks Participant**