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## PROFESSIONAL

### Pivotal Labs

*Software Developer*

Jan - Apr 2017

Developed 3 iOS apps for a Fortune 10 client with Swift, Objective-C++, and Cocoa

- Completely redesigned a navigation applet and eliminated >80% of navigation bugs
- Optimized Concourse CI/CD pipelines to decrease testing times by 30%
- Used Agile and version control tools such as PivotalTracker, Git, and SourceTree
- Faithfully used test-driven development while pair-programming with full-times

*Tests Developer*

May - Aug 2016

Wrote 20 Espresso, Earl Grey, Cedar test suites for 3 mobile applications

- Verified daily stories on 2 Android/iOS projects in an agile environment
- Setup automated Android Espresso tests for Concourse CI pipelines
- Handled multiple projects simultaneously to deliver high quality apps to clients

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### Institute for Quantum Computing

*Research Assistant*

Jan - Apr 2016

Assembled Czerny-Turner monochromator with Waterloo professor supervision

- Learned 3D CAD with Autodesk Inventor; data visualization with MATLAB
- Designed and 3D-printed >15 plastic components and assemblies with Inventor
- Led the initial design of MATLAB application used to present spectrometer data
- Soldered and programmed Arduino and Motor Shield to control multiple motors

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### City of Toronto

*Applications Developer*

Jan - Dec 2015

Created 3 server-based applications using Oracle APEX, JavaScript, and PL/SQL

- Developed SQL queries and workflows used by >500 Toronto Water employees
- Helped debug numerous applications and updated application documentations
- Provided technical services to City of Toronto facilities

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## TECHNICAL

- Collaboratively developing UNIX shell emulator using pure JavaScript, HTML, and CSS: [jerrxu.github.io](https://jerrxu.github.io)
- Web/server development experience with PHP, Bootstrap, jQuery, and SQL
- Skillful in iOS and Android development, built numerous apps for school and work
- Fluent in Agile methodologies like TDD, CI, pair programming; solid knowledge of version control with Git, SVN
- Hardware experience: programmed microcontrollers and FPGA boards with Assembly ARM, VHDL, and C/C++
- Circuits experience: used oscilloscope, function generator, and SPICE software to analyze non-linear circuits

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## PROJECTS

### Java and Android Programming

Sept 2012 – Present

- Created numerous Android Applications with Java in Eclipse and Android Studio
- Collaboratively developed Java programs, simulations, and 2D games with Greenfoot and Visual Studio
- Familiarized with various Android systems and APIs e.g. activity life cycles, sensor data processing

### 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

B.A.Sc. in **Computer Engineering** - University of Waterloo, Class of 2019

**Courses:** Operating Systems | Compilers | Embedded Microprocessors | Digital Hardware Systems

**Programming Mentor** of Computer Science and Robotics Club | **Violin Section Lead** of UWSO

**Participant of:** HackWestern | NASASpaceApps | TerribleHacks