# MICHAEL CAI

2A Electrical Engineering

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## SKILLS

- Development experience with **Java**, **C/C++**, and proficient with **Espresso** and **Kif** automation.
- Experience with network configuration, **Telnet**, **SSH/SSL**, and troubleshooting with **Charles**.
- Familiar with web development using **HTML**, **CSS**, **JavaScript**, and **Ruby on Rails**.
- Proficient with **Git**, **Android Studio**, **Bash/UNIX** environment, **NetBeans**, and **Xcode**.
- Knowledge of **Jenkins CI**, **Spoon**, **PivotalTracker**, and **Jira**.

## EXPERIENCE

### AGILE TEST ENGINEER | Exploratory Testing Team, Pivotal Labs.

Sept - Dec 2015 | Toronto, ON

- Developed automation tests for various Android applications using Android Studio and Espresso.
- Discovered defects/bugs and created detailed stories in Pivotal Tracker and Jira.
- Interacted with engineers in performing automated testing and in developing testing tools.
- Performed smoke, functional and regression testing on QA, CERT, Sandbox, UAT and PROD environments.

### TECHNOLOGY DEVELOPMENT ENGINEER | Distribution and Asset Management, Hydro One Inc.

Jan – May 2015 | Toronto, ON

- Identified and developing key tools for effective decision making for the transmission and distribution businesses and recognized factors such as economics, performance and risk
- Gathered data/ documented technical / business information for aging equipment using SAP and other methods and tools are to help with decision-making for managing aging equipment and systems
- Created an automation script for PSS/E program, InfoExtract, with C# for data collection and analysis

## PROJECT EXPERIENCE

### Pivotal ETT Super Scripts

Sept - Dec 2014 | Pivotal Labs

- Developed shell scripts for Android and iOS devices, using bash, for testing on multiple devices at once.
- Designed GUI for Android and iOS script deployment and created Java to Bash connectivity bridge.

### Digital Circuits and Systems - Advanced VHDL

May - August 2015 | Coursework Project | University of Waterloo

- Designed traffic light control system as a sequential circuit with clock, controlling two traffic lights at an intersection using a state machine
- Built VHDL circuit to choose between various calculations and logical operations. Circuit can perform multiple operations with no memory

### InfoExtract

Jan - May 2015 | Independent Project | Hydro One Inc.

- Proposed, developed and tested a computer application that would enable user to extract data of a specific type and preform analysis on the data collection
- Made using Visual Studio 2010 for PSS/E Load Flow and PSS/E Harmonic Frequency Scanner Tool

### Electrical Design of Hardware Components

Sept - Dec 2014 | UWaterloo Hydrid Team

- Used Altium Designer to create schematics of circuit boards and collaborated with team to build the entire electrical network of the electric car
- Experienced with building circuits, soldering, and the use of many tools from wiring insulating compressors to power tools

## EDUCATION

### Sept 2014 - Present | University of Waterloo

- Bachelor of Applied Science in Electrical Engineering (GPA: 3/4)