

# MICHAEL CAI

2B Electrical Engineering  
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## SKILLS

- Development experience with **Java**, **C/C++**, and proficient with **Espresso** and **Kif** automation.
- Familiar with web development using **HTML**, **CSS**, **JavaScript**, and **Ruby on Rails**.
- Tools & Frameworks: **Jenkins/Circle CI**, **Spoon**, **Android SDK**, **RESTful API**, **Lombok** and **Git**.

## EXPERIENCE

### AGILE SOFTWARE ENGINEER | ENGINEERING, PIVOTAL LABS.

May - Aug 2015 | Toronto, ON

- Developed the **Ford** Android application and boosted app downloads by **30%** and achieved a **4-star** rating in the Play Store.
- Improved network performance **2x** by implementing reactive programming practices with **RxJava** and **RxAndroid** and caching systems to reduce load on the main thread.
- Designed and developed with the **Model-View-Presenter** architecture to separate business logic from Android and allow for the development different build variants.
- Maintained the code base by designing **Robolectric** unit tests and used **Dagger** with **Mockito** to efficiently find dependency errors earlier in compile time.
- Implemented guidelines for **Espresso** instrumental tests, integration testing and regression testing.
- Communicated effectively through pair programming and applied core practices of **TDD** in an agile development cycle and worked on a **Linux** based environment.

### AGILE TEST/AUTOMATION ENGINEER | EXPLORATORY TESTING TEAM, PIVOTAL LABS.

Sept - Dec 2015 | Toronto, ON

- Fixed existing automation tests for various Android applications using Espresso, optimizing test suites by **200%**.
- 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
- Archived and 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

### TINGIT

Sept 2016 - Present | Android Application.

- An **Android** app based on Pockethub which allows a mobile friendly view of Github source codes and repositories with unique feature for viewing pull request and accepting issues.
- Utilized **Retrofit** and **Github API** with **RxJava** and to pull data, all on a beautiful **material design** interface.

### 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 perform analysis on the data collection
- Made using C# for PSS/E Load Flow and PSS/E Harmonic Frequency Scanner Tool

### ELECTRICAL DESIGN ENGINEER

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
- Involved in 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: 3.3/4)