

# Connie Ma

## SKILLS

Electrical / Hardware	Languages / Software	Other Tools
<ul style="list-style-type: none"><li>• Breadboard circuit assembly</li><li>• RC/LRC circuit analysis</li><li>• Altera Cyclone II FPGA</li><li>• PCB assembly via reflow soldering</li><li>• RS232</li></ul>	<ul style="list-style-type: none"><li>• Javascript, ReactJS</li><li>• C, C++</li><li>• Python, Ruby</li><li>• Scala, Akka and Spray.io</li><li>• Java, Android API</li><li>• SQL</li></ul>	<ul style="list-style-type: none"><li>• Amazon Web Services CLI and Tools (EBS, EC2, S3, Route53, RDS, Kinesis, Lambda)</li><li>• Agile methodology</li><li>• Git, Subversion, JIRA, CI servers</li><li>• Broadcom WICED Wi-Fi framework</li></ul>

## ACADEMIC PROGRAM

**University of British Columbia, Vancouver, BC**

Bachelor of Applied Science in Computer Engineering (Software Option)

Anticipated Date of Graduation: May 2018

## CO-OP WORK EXPERIENCE

**Neurio Technology Inc., Vancouver, BC**

**MAY 2015 – SEP 2016**

### Firmware Development

- Designed and implemented an HTTPS file upload feature for a major backend release of the Neurio Home Energy Monitor, increasing productivity of the device during OTA-upgrade times by 25%
- Implemented software flow control for another major firmware internal project that demanded understanding and making use of XBee radio AT commands in the span of 1.5 weeks

### Full Stack API / Web Development

- Implemented backend features for the Neurio REST API. Wrote endpoints for user energy forecast data, device commissioning, user and location settings, appliance data, and other features
- Wrote scalable database migrations to the Neurio production SQL server
- Developed major web features such as historic graphs, energy consumption forecast calculations, in-app notifications, and other smaller features for the Neurio web application
- Redesigned and implemented the Neurio API documentation website in Ruby / Ruby-on-Rails
- Troubleshooted a production backend problem that was unrelated to API / Web and communicated with AWS support to debug memory leak issues; ultimately increased performance of the calculation by 60%

### Test Development

- Designed, deployed and maintained an end-to-end QA environment that paralleled the production environment
- Wrote test scripts for the Neurio solar savings feature, consumption forecast features, and API unit tests
- Planned and designed regression test plans for a complex retroactive data analytics (ML) infrastructure component, including organized smoke tests, A/B test cases, and pairwise test cases

**Qooway Rewards Inc., Richmond, BC**

**MAY 2014 – AUG 2014**

### Junior Android Developer

- Developed two major features: a photo gallery and a user "check-in" feature for the Qooway consumer application
- Designed and coded a REST API client testing program that could run test iterations of API calls to a server database; testing of this client decreased predicted downtime of server by 10%

## OTHER TECHNICAL EXPERIENCE

**UBC Thunderbots Team, UBC**

**SEP 2014 – MAY 2015**

- Wrote scripts and tested implemented plays and tactics based on the Thunderbots robot software
- Participated in the development of a particle filter feature to determine location of the ball for robot orientation, using Monte Carlo density estimation algorithms

## ACTIVITIES AND INTERESTS

- Software and hardware security (achieved highest course mark of 100% in CPEN 442 Computer Security)
- Cross-country running, NBA, traveling, and learning foreign languages