

Connie Ma

SKILLS

Electrical & Hardware	Languages & Frameworks	Other Tools	Courses Taken
<ul style="list-style-type: none">• System Verilog• RS232, RFCOMM• Altera Cyclone II FPGA• RC/LRC circuit analysis• PCB assembly via reflow soldering• VHDL	<ul style="list-style-type: none">• C++, C• Java, Scala, Android API• Javascript (ES6), React, Node.js• Python, Ruby, Ruby on Rails• SQL, MySQL• ASM, Program disassembly using IDA Pro	<ul style="list-style-type: none">• Amazon Web Services CLI and Tools (EBS, EC2, S3, RDS, Kinesis, Lambda)• bash, Linux & *nix OS• Broadcom WICED Wi-Fi framework• Wireshark	<ul style="list-style-type: none">• Networking & Communications• Distributed Systems• Operating Systems• Data Structures & Algorithms• Digital Systems & Microcontrollers• Relational Databases• Computer Security

ACADEMIC PROGRAM, GRADUATING MAY 2018

University of British Columbia, Vancouver, BC, Canada

Bachelor of Applied Science in Computer Engineering (Software Option)

Minor in Asian Language and Culture of Japan

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 prominent backend release of the Neuroio Home Energy Monitor, increasing productivity of the device during OTA-upgrade times by 25%
- Implemented software flow control for a mock XBee radio device, as part of a separate internal firmware project

Full Stack API / Web Development

- Implemented backend release features for Neuroio's 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 Neuroio production SQL database
- Developed and maintained core web features such as historic energy graphs, consumption forecast calculations, in-app notifications, and other smaller features for Neuroio's web application

Test Development

- Designed, deployed and maintained an end-to-end QA environment that paralleled the production environment
- Wrote test scripts for the Neuroio 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

- Implemented two major release features: a photo gallery and a user "check-in" protocol for Qooway's consumer app
- Designed and developed a REST API client test program that ran iterations of API calls to a server database

TECHNICAL PROJECTS

Triolingo @ NWHacks 2018, UBC

13-14 JAN 2018

- Designed and coded a voice-to-text-translation app to help users learn foreign language conversation in real-time, via Google Speech Recognition and Google Cloud Services' Translation API. **Project won Wolfram Award (Top 30 Finalist)**

Authorized Security Analysis of GridGear Solutions, UBC

SEP 2016 – DEC 2016

- Assessed the confidentiality and integrity of GridGear's smart metering system by developing multi-tiered adversary models. Used attack vectors such as password cracking, eavesdropping with Wireshark, and device impersonation
- Project won first place awards in Best Security Analysis, Best Presentation, and Best Video in the course

ACTIVITIES AND INTERESTS

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