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Connie Ma

SKILLS

Electrical / Hardware	Languages / Software	Other Tools
● Breadboard circuit assembly ● RC/LRC circuit analysis ● Altera Cyclone II FPGA ● PCB assembly via reflow soldering ● RS232	● Javascript, ReactJS ● C, C++ ● Python, Ruby ● Scala, Akka and Spray.io ● Java, Android API ● SQL	● Amazon Web Services CLI and Tools (EBS, EC2, S3, Route53, RDS, Kinesis, Lambda) ● Agile methodology ● Git, Subversion, JIRA, CI servers ● Broadcom WICED Wi-Fi framework

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 prominent 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, which additionally demanded learning and making use of XBee radio AT commands in the span of 1.5 weeks

Full Stack API / Web Development
● Implemented backend release features for Neurio'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 Neurio production SQL server
● Developed and maintained core web features such as historic graphs, energy consumption forecast calculations, in-app notifications, and other smaller features for Neurio's 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 release features: a photo gallery and a user "check-in" protocol for Qooway's consumer app
● Designed and implemented a REST API client test program that could run iterations of API calls to a server database; making use of this client decreased predicted downtime of the 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, RTS / MOBA games, and learning foreign languages