# Can Chen

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Portfolio: <a href="http://www.canchen.rocks">http://www.canchen.rocks</a>

### Education

## **Bachelor of Engineering in Electrical**

February 2017

Carleton University, Ottawa, Ontario

# **Work Experience**

### Engineer Intern, May 2016 – July 2016

Shandong Chencan Machinery Co., Ltd., China

- Improved research skills by conducting extensive research on additive manufacturing.
- Assist with project coordination between R&D teams, including researching, reporting, and resource allocations.
- Composed proposals to support the management for decision making on product development.
- Enhanced data collection and organization skills through preparing Bill of Materials; and worked with purchasing team to obtain the optimal purchase.
- Assembled and soldered 3D printer prototype by reading complicated CAD schematics and instructions.
- Conducted unit test and troubleshooting on 3D printer prototype.

# Relevant Project Experience

#### **Build Neural Network in Python**

Feb. 2017 – Present

- Implemented a three-layer neural network to make predictions of bike-sharing usage from historical data.
- Gained solid understanding and on data collection, data analysis, and data preparation to continuously improve the accuracy of the forecast result.
- Learned Python language for data analysis and machine learning.

#### **Product Design and Development**

Jan. 2017

- Developed a proposal for the 'wireless-enabled window blinds roller'.
- Analyzed the requirements and design the prototype utilizing analytical thinking and problem-solving skills.
- Developed solid understanding of Home Automation and Internet of Things.
- Improved programming skills by developing the firmware(C) and driver(Python).

- Independently developed a portfolio website while following Agile development methodology and utilizing source control tools.
- Learned HTML, CSS, JavaScript and PHP throughout development.
- Reviewed and improved the website to ensure high performance on both mobile and desktop based on the feedback from test users.

#### **Embedded System Development**

Aug. 2016 - Nov. 2016

- Developed firmware of an ARM-Cortex M4 microcontroller to control an industrial printhead through SPI bus.
- Gained Solid understanding of ARM-Cortex M microcontrollers through learning the documentations.
- Enhanced circuit design skills by practicing circuit isolation techniques and voltage level converting techniques.
- Obtained the skill to design multi-sheet schematic and multi-layer PCB in Altium Designer.

# Carleton University, B.Eng. 4th Year project Android App development

Sept. 2015 - Apr. 2016

- Designed, developed, and implemented a mobile application using Java, XML, PHP, and MySQL for the 'Smart Parking Services' group on Android platform.
- Improved customer service skills by consulting with test users; and enhanced the UI/UX from feedback gathered.
- Gained expertise in Object-Oriented Programming and version control.
- Exhibited strong multidisciplinary teamwork skills with team members from distinct programs.
- Demonstrated time management and organizational skills through completing all project milestones in a timely manner.

## **Technical Skills**

**Operating Systems:** Windows, Linux-based OS, Mac OS X.

**Microcontrollers:** Arm Cortex M3/M4 (STM32, TI), Atmel AVR.

**Languages:** C, C++, Java, XML, Python, JavaScript, PHP, SQL, HTML, CSS, Assembly, Verilog. **IDE:** Visual Studio, Android Studio, Anaconda, Eclipse, Keil μVision, Code Composer Studio **CAD Tools:** Altium Designer, Cadence Suite, Xilinx Suite, MatLab/Simulink, SolidWorks.

Protocols: CDMA, CSMA, MAC, TCP/IP, UDP, Ethernet/IP, I2C, SPI, UART.

Source Control: Git

**Lab Equipment:** Oscilloscope, Spectrum Analyzer, Logic Analyzer, Function Generator, Multimeter, Soldering Iron.