

## Ning Yang

One Harrison Ave, Apt 414, Harrison, NJ, 07029 | 551-689-3448 | yndlut@gmail.com

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### WORK EXPERIENCE

**RAB Lighting Inc.** | NJ | U.S.

Firmware Engineer | Jan. 2020 – Present

Software Engineer Intern | May. 2019 – Jul. 2019 & Sep. 2019 – Dec. 2019

- Develop Lightcloud™ devices for wireless light control
- Utilize Digi XBee RF module for mesh network and IoT application
- Familiar with Apache Mynewt RTOS and Microchip SAM D20 (Cortex-M0)

**Techtronic Industries Co. Ltd.** | Hong Kong

Principle Engineer | Jan. 2018 – May. 2018

Engineer | Jul. 2014 – May. 2018

- Developed motor control embedded software platform on TI MSP430 family
- Supported & managed product development from concept to mass production release
- Handled & supervised embedded software debugging and testing
- Led team of 5 engineers for reviewing codes, flowchart, schematic & specifications

### RECENT EXPERIENCE

- Design & implement an I2C protocol to control multiple LED drivers and allow over-the-air firmware update.

- System redesign for sensor device ([lightcloud.com/item/sensor](https://lightcloud.com/item/sensor)) including motion detection with PIR sensor, occupancy and vacancy control, power consumption monitoring, etc.

- Involve in designing a device that uses accelerometer, GPS and ambient light sensor for remote and local light control.

### PREVIOUS PROJECT

**Ryobi Percussion Drill/Driver** | Model # R18PD5/R18DD5 | [youtu.be/jUAKBG-jaMI](https://youtu.be/jUAKBG-jaMI)

Lead Firmware Developer | Techtronic Industries | Nov. 2017 – May. 2018

- Invented e-torque control that automatically drives screws flush for a perfect finish
- Implemented closed-loop PID motor speed control

**RIDGID Brushless Drill/Driver** | Model # R8611506BN | Home Depot # 1005473124

Firmware Developer | Techtronic Industries | Mar. 2016 – Sep. 2017

- Implemented communication protocol (RIDGID OCTANE™) between power tool and battery pack via UART.

### EDUCATION

**Stevens Institute of Technology** | NJ | U.S.

M.S. in Computer Science | Aug. 2018 – Dec. 2019

**Hong Kong University of Science and Technology** | Hong Kong

M.S. in Electronic Engineering | Sep. 2013 – Jun. 2014

**Dalian University of Technology** | China

B.Eng. in Electronic and Information Engineering | Sep. 2009 – Jun. 2013

### SKILLS

Proficient in embedded C and Embedded System Design

Experienced in UART, I2C, SPI, ADC, BSP; Familiar with Python, C++, JavaScript