KELLY TANG

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SKILLS

- **Hardware:** PCB design/layout, Circuit analysis/simulation, SPI, CAN Bus
- **Software:** Embedded C, C++, Python, Java
- **Tools:** Altium Designer, AutoCAD, 3D CAD (Revit, Visual Lighting), Git
- **Instrumentation:** PCB bring-up, Soldering, Oscilloscope, DMM

EXPERIENCE

Electrical Designer   Toronto, ON
Smith + Andersen   *Jan 2019 - Apr 2019*
- Developed schematics and single-line diagrams of power distribution and emergency systems for residential and institutional buildings using AutoCAD
- Assisted with multi-disciplinary tasks such as load calculations of HVAC equipment to coordinate with mechanical drawings and designs
- Designed lighting layouts by producing calculations and renderings through lighting simulation models, resulting in energy efficient systems that met the client's and safety code requirements

Circuit Board Manufacturing Engineering Assistant   Waterloo, ON
Rapid Prototyping Centre – University of Waterloo   *May 2018 - Aug 2018*
- Designed and manufactured custom PCBs ranging from breakout boards for automotive ECUs to sensor modules for wearable electronics
- Facilitated new quality assurance procedures to guarantee product quality and consistency in all aspects of the manufacturing process, including CNC milling, copper plating, and electrical testing

Hardware Designer   Waterloo, ON
Midnight Sun Solar Electric Car Design Team   *Jan 2018 - Present*
- Designed a current sensing PCB to assist the Battery Management System with monitoring the state of the Li-ion pack
- Restructured the driver controls I2C architecture by investigating solutions to reduce EMI in order to provide improved fault-tolerant hardware
- Performed various hardware validation tests, including characterizing ADC accuracy and applications of external low-pass filters on serial interface pins

PROJECTS

Smart Plant Monitoring System
- Collaborated with team members to design and develop a Linux based embedded system that measures and provides updates on a plant's soil moisture levels and temperature
- Helped implement algorithm in C to collect and display plant data collected from analog signals provided by various external sensors

EDUCATION

University of Waterloo   *2017 - Present*
- Bachelor of Applied Science in Electrical Engineering