Emma Blatt

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Experience

Apple • iPhone System Integration EE

Sept 2020 - Dec 2020

- Validated system functionality of ambient light sensor module and led flex PCB revision to mitigate power supply noise.
- Developed MATLAB tool to reduce manual testing for algorithm selection, optimizing power consumption and user experience.
- Verified power integrity spec for NAND chip using HSPICE, PowerDC, and PowerSI.

Sept 2019 - Apr 2020

- EE integration of camera sensor including system validation and debugging electrical issues cross-functionally with other teams.
- Tested gas gauge, charge profile, and battery protection circuitry.
- Measured wireless charging efficiency and documented charging architectures of competitor devices in comparison to iPhone.

Nytric • Electrical Product Development Intern

May 2018 - Aug 2018

- Created schematics and PCB layouts for 31.5” infrared-based multi touch frame with mixed signal PCB layout using Altium.
- Designed and simulated a fixed dead-time, discrete synchronous switching regulator which improved full-load efficiency by 10%.

UW Mars Rover Team • Electrical Co-Lead

May 2018 - Aug 2019

- Managed 15+ people to design and assemble electrical systems for the University Rover Challenge.
- Designed schematics + PCBs for rover controller boards in Diptrace.
- Prepared workshop and taught 35+ attendees about the basics of schematic capture, SPICE simulation, and PCB layout.

TD Bank Innovation Lab • Product Design Intern

Sept 2017 - Dec 2017

- Designed experimental app to address issues with bill payment, and conducted 15+ user interviews to validate prototype.

Drop Technologies • Junior Software Developer

Jan 2017 - Apr 2017

- Independently designed and implemented app feature that reduced the total number of support tickets by 10%.

About Me

I’m a 4th year electrical engineering student who is passionate about electronic design, sensor integration, and power systems.

Looking for a 4-month internship from
Sept 2021 to Dec 2021.

Skills

Design

Altium, Cadence Allegro
Analog/digital circuit design
Prototyping + bring-up
Component sourcing
Skilled with I2C, SPI, CAN

Simulation

ADS, LTSPICE, HSPICE,
PowerDC, PowerSI
PCB layout extraction

Lab

Debug + failure analysis
Soldering + PCB assembly
Power + signal integrity, spectrum analysis, jitter, timing measurements

Languages

Python + MATLAB scripting
Familiar with Verilog, C, C++

Education

University of Waterloo

Expected April 2022

Candidate for B.A.Sc in Electrical Engineering