Mitchell Stride

Electronics Engineering Student Embedded Systems | PCB Dev.

Interested in electronics for embedded applications. Specialized in microcontroller based PCB Design. Working towards P. Eng.



Work Experience

Hardware Verification Engineer – Co-op

Nokia – Telecommunications Hardware
Jan 2020 – Apr 2020 & Jan 2017 – Apr 2017 | Ottawa, ON

- ⇒ Created verification test plans to execute in the lab. Provided schematic and routing feedback to lead designers.
- ⇒ Drafted ECOs to rework PCBs and optimize manufacturing.
- ⇒ Reworked complex HDI designs with 0201 size passives.
- ⇒ High current, multi phase, power supply stability testing.

Hardware Design Engineer – Co-op

Curtiss-Wright – Embedded Defense Solutions
Jan 2019 – Apr 2019 | Ottawa, ON

- ⇒ Performed schematic, layout, and routing reviews for complex Intel and PowerPC based single board computers.
- ⇒ Created and performed DVT test plans on high speed signals using a 16GHz scope.

Embedded Systems Engineer – Co-op

Kraken Robotics Inc. – Underwater Sonar & Robotics
Apr 2018 – Aug 2018 | St. John's, NL

- ⇒ Designed 10+ PCBs and 2 embedded stacks for underwater robotics in rugged environments using KiCAD.
- ⇒ Evaluated solutions in the lab using rapid prototyping techniques with STM32 Nucleo development boards.

Cross Asset Engineering Assistant

ExxonMobil – Upstream Instrumentation & Controls
Sept 2017 – Dec 2017 | St. John's, NL

- ⇒ Designed analog and digital logic to optimize the Electrical Power Management System for an offshore oil platform.
- ⇒ Used the ABB 800xA software suite to create logic and HMI graphics for real time operator recommendations

Website Developer

Blue Ridge Inc. – Outdoor Supply & Gear

Sept 2014 – June 2015 Lewisporte, NL

- \Rightarrow Launched online shopping solution with the aid of Shopify.
- ⇒ Developed the website www.theoutdoorsupplystore.com

Education

Memorial University of Newfoundland

Bachelor of Electrical Engineering Co-op Program Fifth Year, Expected Graduation April 2021

Technical

⇒ PCB Design ⇒ Embedded Systems
⇒ Schematic Capture ⇒ Microcontrollers
⇒ Layout & Routing ⇒ Adv. Radio License
⇒ Prototyping ⇒ 3D-Printing
⇒ SMD Soldering ⇒ CAD Modeling
⇒ DVT & PVT ⇒ Debugging

Software

 \Rightarrow KiCAD \Rightarrow C & C++

⇒ Eagle
 ⇒ Gerber Viewers
 ⇒ SPICE Simulation
 ⇒ Solidworks
 ⇒ Mbed Framework
 ⇒ AVR Assembler
 ⇒ GIT, SVN
 ⇒ ABB 800xA

Extracurricular

Paradigm Hyperloop

Electrical Team | Sept 2017 - Present

⇒ System Architecture, PCB Design

Memorial SAE Baja

Electrical Lead | Jan 2018 – Jan 2020

 \Rightarrow Designed Data Acq. System & Gauge Cluster

⇒ FPV Video Sys. & LoRa communication

IEEE

Student Branch Chair | Jan 2017 – Jan 2020

- ⇒ Gave workshops on PCB Design, etc.
- ⇒ Organized Events, Launched Stay Late & Make

Projects

⇒ IOT Smart Home
 ⇒ Nixie Tube Clock
 ⇒ FPV Racing Quad
 ⇒ PCB Reflow Oven
 ⇒ Solar Tracking PCB
 ⇒ Auto Fish Feeder
 ⇒ Emerg. Light System
 ⇒ Relay Arduino Shield

 \Rightarrow Wireless PWR TX \Rightarrow RC Plane

Interests

 \Rightarrow HAM Operator \Rightarrow Camper

⇒ Motorcycle ⇒ Electronics Hobbyist

 \Rightarrow RC Vehicles \Rightarrow Movies

 \Rightarrow Foosball \Rightarrow PCB Design (30+) \Rightarrow Coffee \Rightarrow Basket Ball