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**SKILLS**

**Programming:** VHDL, Verilog, C, C++, Java, Python, Groovy

**Technology:** OrCAD, Allegro, Altium Designer, LTspice, Quartus Prime, Vivado, ModelSim, Git, Visual Studio, Docker, Jenkins

**EDUCATION**

**Honors Electrical Engineering University of Waterloo**

* Candidate for Bachelors of Applied Science
* Relevant Courses: Electronic Circuits II, Signals and Systems, Digital Circuits and Systems, Digital Computers, Electrical Properties of Materials, Algorithms & Data Structures

**ACHIEVEMENTS**

* Awarded the President’s Scholarship of Distinction from University of Waterloo
* Selected amongst the top 15 students nationwide in National Chemistry Talent Contest

**EXTRACURRICULARS**

* Working with the Engineering Society as Engineering Ambassador and Student Lounge Manager
* Enjoys playing soccer and reading thriller novels

**SUMMARY**

* Skilled in schematic design and PCB layout along with tools like OrCAD, Allegro, Altium Designer and LTspice
* Previous experience with oscilloscopes, logic analyzers, function generators and DMMs
* Experienced in Digital and Embedded System Design on FPGA’s and microcontrollers and associated tools (Quartus Prime, μVision)
* Proficient in VHDL, Verilog and C
* Exceptional communication, problem solving and organizational skills gained through extracurricular leadership activity

**EXPERIENCE**

**Hardware & Test Engineering – KA Imaging Jan-Apr 2019**

* Designed schematic and PCB layout for Li-ion and Supercapacitor Battery Charger Board for the latest iteration of color X-ray detector
* Assembled and verified functionality of existing and new PCBs
* Developed and tested embedded software for I2C and SMBus protocol for microcontrollers (CC 2640, MSP 430)

**Hardware Design – Evertz Microsystems May-Aug 2018**

* Performed functional and in-circuit tests for assembled PCBs
* Implemented and tested new error-checking blocks for video and audio testing using VHDL
* Engineered solutions to isolated issues and verified functionality for IP based products for broadcast facilities
* Upgraded existing automated product test setup by adding new functionality and supported products using Python, Java and C++

**PROJECTS**

**Digital Voltmeter**

* Designed the schematic and PCB layout for 4.5-digit digital voltmeter using OrCAD Capture and Cadence Allegro
* Incorporated four different voltage ranges (200mV to 200V) and utilized TLC7135 for voltage measurement and display driver

**Flood Sensor Circuit**

* Prototyped the circuit on a breadboard using the schematic
* Created the PCB layout for the circuit using KiCAD

**Prime Number Detection (VHDL)**

* A synthesizable design to check primality of 8-bit binary numbers
* Uses Miller Rabin Test to check for primality