Nosherwan Ahmed

+1 (519) 722-6898
n64ahmed@edu.uwaterloo.ca
nosherwana.github.io
linkedin.com/in/nahmed24
github.com/NosherwanA

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 I^2C 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