Timothy Volpe

ELECTRICAL ENGINEER LOOKING FOR FULL-TIME JOB

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Education and Awards

University of Massachusetts, Lowell   May, 2020
Bachelor of Science in Electrical Engineering

Awards and Accomplishments: Awarded Rank of Eagle Scout in 2015, Assistant Scoutmaster 2016-Present

Technical Skills

Hardware: Oscilloscope, Multimeter, Logic Analyzer, Function Generator, Temperature Chamber, Soldering

Software: SolidWorks, NI LabVIEW, Autodesk EAGLE, SPICE, MATLAB, ANSYS HFSS, ANSYS Maxwell, Microsoft Visual Studio, Studio 5000 Logix Designer

Computer Programming: C++, C, Python, Assembly (x86, AVR, PIC, z80), PHP, HTML/CSS, MySQL, LaTeX

Engineering Experience

Rockwell Automation Magnetic Safety Lock
- Developed and executed test procedures for design verification of safety-critical product
- Gained experience working with modern, low-power PCBs using SMD components
- Used wireless proximity sensing such as RFID and magnetic sensors
- Tested the viability of various low-impact design changes to an existing product and presented them to the team

Enel Green Power Autonomous Waterway Cleaning Robot
- Placed in charge of programming the vehicle computer and adding navigation sensors
- Organized communication of multiple SPI and I2C devices
- Gained experience designing an electronic system for a harsh outdoor aquatic environment
- Used a Raspberry Pi connected to various sensors, such as ultrasonic and LIDAR distance sensors for environment sensing

Entegris Electrostatic Chuck Test Setup
- Created an automation package for an electrostatic chuck test setup
- Challenged with interfacing multiple pieces of high-powered industrial test equipment, as well as pneumatic controls
- Used NI's CompactDAQ system in conjunction with LabVIEW for data acquisition and hardware control
- Worked directly with engineers and gained experience in a cross-discipline engineering team

Work Experience

Savant Systems, Hyannis, MA   October 2020 - Present
Manufacturing Engineer
- Supporting manufacturing and testing of consumer electronics
- Developing improvements to the QA process to increase output using software tools such as Python
- Root cause analysis and correction of failures that occur throughout the product lifecycle

Rockwell Automation, Chelmsford, MA   June, 2019 - January, 2020
Electrical Engineering Co-Op
- Worked on new products as well as continuation of popular product lines, including magnetic safety switches and light curtains
- Performed design verification testing to ensure products meet required specifications
- Collected data through simulations and mathematical analysis to support PCB design changes

Senior Aerospace Metal Bellows, Sharon, MA   May, 2016 - July, 2016
Engineering Intern
- Worked on a variety of engineering and clerical tasks given to me by the team
- Gained experience in a production environment and familiarized myself with safety procedures
- Gained exposure to multiple engineering disciplines

Interests

My hobbies include designing and building custom electronics, programming (including game design), home-brewing, using my 3D printer, and home chemistry projects. I love being outdoors, spending my time in the summer fishing, hiking, and camping, and in the winter I can be found on the ski slopes or playing hockey on a pond. I play hockey and soccer, and am a big fan of New England sports, namely the Bruins.