Nash McDonald

Electrical Engineer

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Education

Portland State University *Portland, Oregon*

B.S. in Electrical Engineering *Aug 2018*

- Focus in Power and Energy Systems

Work Experience

Intel Sports Pathfinding, Intel *Hillsboro, Oregon*

Hardware Design Intern *Jul 2016 - Jun 2018*

- Created schematic layouts for various embedded systems projects used in individual player tracking and movement analysis.
- Designed printed circuit boards for various embedded systems projects and connector interfaces for a high speed volumetric video capture system.
- Worked alongside contractors and printed circuit board fabricators to ensure boards met project standards and specifications.
- Sourced components for all responsible projects and worked alongside component suppliers to find alternatives when older components became obsolete or ran out of supply.
- Troubleshot various projects when issues arose using oscilloscopes, DMMs, and signal analyzers.
- Assembled connector interfaces and reworked various projects using a soldering station and tools.
- Programmed software to analyze and plot power consumption data of battery powered player tracking systems.
- Programmed basic firmware for flashing micro-controllers, specifically the ATmega32u4.
- Tenaciously documented project steps, components, and progress for easy follow-up.

Portland State University *Portland, Oregon*

OIT Computer Lab Attendant *Jan 2014 - Jul 2016*

- Assisted students and teachers with any software or hardware issues experienced in the lab.
- Documented and reported recurring problems in the lab.
- Communicated via chat, email, or telephone with teammates in a timely manner when issues arose.

Portland State University *Portland, Oregon*

Project Team Leader *Mar 2016 - Jun 2016*

- Led a team of 4 people in designing, testing, and building a synchronous machine starter and generator for the purpose of synchronizing with grid power.
- Scheduled meetings and prompted discussion of the project between team members.
- Modified the project panel in order to implement new design features and meet NFPA 70 and NESC standards.
- Programmed a Programmable Logic Controller to run a Variable Frequency Drive at the desired frequency, generator nameplate ratings, and other control parameters.

Skills

Hardware: Soldering, Schematic Design, PCB Design, PCB Testing/Troubleshooting

Programming Languages: C/C++, MATLAB, Python

Software: OrCAD Capture/Allegro PCB Editor, KiCad Schematic and PCB Editor, Do-More/C-More, LTSpice, Atmel Studio, ShareLaTeX, Overleaf