Nicholas Johansen

Education

2016–Present **Oregon State University**, *Electrical and Computer Engineering with Minor in Computer Science*. Expected Graduation Date: June 2020 Senior at Oregon State University's Engineering program with a 3.2 GPA focusing in Computer Engineering.

Related Coursework

- Senior/Junior Design
- Computer Organizations Assembly
- Operating Systems I
- Software Engineering

- CMOS Integrated Circuits
- Digital Logic Design
- Computer Graphics
- Computer Architecture

Job Experience

- Sept 2018 EECS Technical Assistant, College of Engineering.
 - Current Helping students understand Electrical Engineering Fundamentals, making quizzes and facilitating labs so that students can get a hands on experience. Courses include ECE111, ECE112, ECE272
- June 2019 Tekbots Summer Intern, Researcher.
- Sept 2019 Researched and developed new multidisciplinary project-based learning curriculum for incoming engineering students. Added and tested new projects for a junior level design class. Designed a LiPo battery charging and monitoring circuit with corresponding PCB.
- Aug 2017 Resident Assistant, Buxton Hall.
- June 2018 Facilitated and managed a community of 40 people, enforced rules, and responded to incidents.

Projects

- 2019 DreamZBox, Computer Engineering, Software Engineering, PCB Design, Power Systems.
- Present This Capstone project involves improving a video game console and custom controllers. This includes all of the firmware for the console itself, PCB design, a power system with a rechargeable battery, wireless protocols, and making the enclosures for the console and controllers.

2019 **LiPo Battery Charger and Monitor**, Computer Engineering, Circuit Design, PCB Design. Designed a circuit that would connect to a LiPo battery, charge it while displaying the current charge on multiple LEDs. Made corresponding PCB so that it would be small enough to fit on a small LiPo battery.

2018 **Competitive Sumo Robot**, Robotics, Computer Engineering, Sensors. Created a robot that would push other robots out of a sumo ring. The robot utilized two rotary encoders, two sonar sensors, and is debuggable over bluetooth.

Proficient Software and Skills

- Languages(C,C++,Python,Assembly)
- o KiCad
- o Quartus
- Visual Studio
- PCB Design
- Circuit Analysis

- Mac, Windows and Linux
- Matlab
- SolidWorks
- Microsoft(Excel, Powerpoint, Word)
- Microcontrollers
- FPGAs

Organizations and Awards

- Eta Kappa Nu IEEE National Honor Society Member
- Oregon State University Robotics Club Member
- College of Engineering 2019 Graduation Committee Member