# KYLE NOBLE

# Portland, OR

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#### **EDUCATION**

**Oregon State University** 

September 2017 - June 2021

B.S. Electrical and Computer Engineering

Overall GPA: 3.92

### TECHNICAL STRENGTHS

Computer Languages

C/C++, Python, SystemVerilog

Software & Tools

Quartus, ModelSim, LTspice, Git, MATLAB, Autodesk Eagle

### **PROJECTS**

# Swarm Robotics Qi Wireless Charging Dock

September 2020 - June 2021

Autodesk Eagle

Working to design and implement a wireless charging system that can concurrently charge 10 swarm robots, each through a coil array that allows the robots to be freely positioned along one axis.

#### 2 Axis Robotic Arm

December 2019 - March 2020

Autodesk Eagle, System Verilog, Python

Worked with two team members to design and implement a 2 axis (SCARA) robotic arm that can draw on 8.5" x 11" paper using either G-code or line segments generated from a webcam image through computer vision. Designed PCB to support stepper motor driver carriers to be used to control the angle that each axis of the arm turns to.

GCD Module

May 2021 - June 2021

System Verilog, Synopsys Design Compiler, ModelSim, YoSys

Designed and synthesized a System Verilog module that calculated greatest common divisor between 2 N bit numbers. Used test bench simulations and formal verification tools to verify design.

# PS/2 Keyboard Interpreter

May 2019

System Verilog, Quartus, ModelSim

Designed and simulated a finite state machine to interpret PS/2 keyboard output on an FPGA with a team of classmates.

## AWARDS AND EXTRACURRICULARS

First place in Lucid Software's team programming competition at Oregon State University, Nov. 17, 2018.

Dean's List, OSU 2018-2019 academic year and Fall Term 2019.

Member of OSU Robotics Club's Underwater team (electrical sub-team) for Fall 2019 and Winter 2020. Helped design PCB for remotely operated underwater vehicle's power supply/converter.

# RELEVANT COURSES

Operating Systems I & II Digital Logic Design VLSI System Design Computer Organization and Assembly Language Multimedia Systems Data Structures Energy Efficient VLSI Design Advanced Computer Networking Linear Algebra I & II Junior Design, Senior Design