# Kevin Ho

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# TECHNICAL SKILLS

- Proficient in C and C++
- Able to code in object oriented programming
- Familiar in Visual Studio, Xcode, Bash, and GitHub
- Adept with Overleaf and Latex
- Able to solder and analyze circuits

- Familiar with an oscilloscope
- Proficient in Matlab and LTspice
- Capable with using a FPGA
- Familiar with PCB design and Altium
- Modeled electric vehicle motors and batteries in Matlab

# EXPERIENCE

## Senior Project

Automation of Oscilloscope Testing

- Collaborated in a team to build a turned gantry system to interface with an oscilloscope's buttons and knobs for Tektronix.
- Modified GRBLHAL to better fit the required task to turn a knob, by controlling another stepper motor and a servo motor.
- Revised homing sequence of GRBLHAL to reduce the risk of damaging the oscilloscope with the toolhead during machine's run time.

## Junior Project

Hyper Rail

- Created an interface with a team for a gantry system to monitor plants in a green house.
- Developed a user interface in python to control the gantry by sending G-Code to the motor controller.
- Gave real time updates of the gantry's exact location to the user, given in Cartesian coordinates.
- Implemented a virtual stop button to stop the machine in case of any emergencies that could damage motors or the environment.

# **OSU Robotics Club Rover Team**

Electrical Team Member

- Worked in small teams to accomplish tasks to build a robot for the rover competition.
- Communicated with other teams across multiple fields to verify design chooses and possible functionality.

#### Education

#### **Oregon State University**

Bachelor of Science in Electrical and Computer Engineering, minor in Computer Science

## **Courses Taken**

Taken a variety of Computer Science and Electrical Fundamental classes

- ECE 438 Modeled and studied electric vehicles
- ECE 431 Power converters, DC-DC, AC-DC, and DC-AC
- ECE 474 Familiarized with system verilog and code coverage testing
- ECE 473 Made radio and alarm using an ATMEGA128 ECE 201/202/203 Circuit analysis of different voltage
- ECE 472 Learned about the way a computer works
- ECE 391 Investigated transmission lines
- ECE 372 Introduced to the communication of computers
- ECE 351/352/353 Studied different types and random signals

- ECE 341/342 Junior group project of designing and building a control module for a HyperRail
- ECE 322/323 In depth circuit analysis with transistors
- ECE 271/272 Learned about logic systems and using a FPGA
- source
- ECE 111/112 Learned reading and calculations of circuits
- CS 344 Operating Systems, coded a secured shell
- CS 261 Linked lists, arrays and binary trees
- CS 161/162 Object oriented programming in C++

January 2021 – March 2021

January 2021 – Current

September 2021 – Current

Corvallis, OR

Corvallis, OR

Corvallis, OR

Corvallis, OR

Expected June 2022