

Longjie Guan

☎ (+1)541-745-9992 | ✉ guanl@oregonstate.edu | 📍 Corvallis, OR 97333

EDUCATION

Oregon State University

Sep. 2017 – Present

Bachelor of Science in Electrical and Computer Engineering

Corvallis, OR

- **Coursework:** VLSI System Design, Signals and Systems, CMOS Integrated Circuit, Sensors, Electric and Magnetic Fields, Computer Organization and Assembly Language
- **Research:** FPGA Digital Circuit Design, Amplifier Circuit, Audio Signal Handling

EXPERIENCE

Undergraduate Learning Assistant

Mar. 2019 – Sep. 2019

ENGR202 (Electrical Fundamentals II)

Corvallis, OR

- Led 2 hours laboratory to present key concepts to students
- Conducted 1 hour office time to help with student's laboratory questions
- Checked off over 10 students' pre-lab and laboratory report

PROJECTS

Mode Selection Machine

Nov. 2020 – Dec. 2020

Computer Organization and Assembly Language

Oregon State University

- * Designed an **Embedded system** on **TekBots** to show flash of Morse Code
- * Achieved controlling by **Assembly Language** on **Atmel Studio 7.0**
- * Displayed 26 letters on the **LCD Screen** by single or combination
- * Confirmed user' choice to flash the Morse Code

Sound Signals Handling

Feb. 2021 – Mar. 2021

Junior Design I

Oregon State University

- * Developed an audio detection system
- * Amplified audio signal over 200dB using designed **LMC6032** circuit
- * Sampled audio signal over 2 times of maximum frequency using **Arduino IDE** program
- * Proved 8 different **LEDs** light up under frequency range correspond to

Electric Pet Door

Mar. 2021 – Jun. 2021

Junior Design II

Oregon State University

- * Built a **motor-driven vertical-sliding** electric pet door
- * Applied magnets to trigger the **Hall-Effect** Sensor for transmitting input signal to **Arduino Nano**
- * Controlled pet door signal and audio signal by command from the **Arduino IDE** program
- * Certified pet door opens with prompt sound once magnet close to pet door

SKILLS

Languages : Verilog, C++, Assembly

Tools : ModelSim, Kicad, LTspice, Arduino IDE, Quartus, Atmel Studio, Matlab