

# Andre Zhu

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Seeking an internship position to apply my skills in software, computer services and data science in a professional setting. Motivated to develop and apply my programming and hardware skills, dedicated and reliable in a team environment.

## **Education**

Oregon State University, Corvallis, OR

B.S. Electrical and Computer Engineering, Minor: Computer Science

Expected June 2021

GPA: 3.67

## **Relevant Coursework**

Operating Systems, Data Structures, Electrical Fundamentals, Computer Networking, Introduction to Computer Science (C++), Computer Organization and Assembly Language (Atmel Studios 7.0), Digital Logic Design (SystemVerilog)

## **Skills**

**Languages:** C, C++, Python, SystemVerilog, Assembly, MATLAB

**Tools:** Atmel Studio, Quartus Prime, ModelSim, Arduino IDE, git, Circuit Analysis, KiCAD PCB Design

**Hardware:** AVR devices, FPGA devices, Microcontroller devices

## **Projects**

### **• Pong in SystemVerilog**

Implemented working physics and collision of the game Pong in Hardware Description Language SystemVerilog, simulating multiple types of controllers using ModelSim, with functional HSYNC/VSYNC generation and VGA output supporting 60Hz using the DE-10 Lite FPGA.

### **• Solar Panel**

Programmed and implemented rotating solar panel that maximizes voltage output, determined by maximizing surface area of panel with available light sources. Used FRDM KL-46z microcontroller, Arduino IDE.

### **• Chess in C++**

Created functional version of Chess in C++, using inheritance, polymorphism, and abstract classes, using arrays to implement piece position and movement.

### **• OSU Audio Engineering Club**

Designed passive crossover speaker system schematic with KICAD that supports mixer and rack gear and assisted in building wooden case to produce most amplification. Created lowpass, bandpass, and high pass filters for respective sound bands.

## **Activities**

### **• OSU ResiSTORE**

Assisted customers with inquiries, managed inventory, and handled register in the ResiSTORE, a volunteer run store that sells electronic components to students.

### **• Corvallis-OSU Symphony Orchestra**

Collaborated with the COSU Orchestra in their 19-20 Season as a pianist, and currently working with related string quartet ensembles.