Samuel T. Wagner

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Education

Oregon State University (OSU), Corvallis, Oregon
Sept 2018 – present
- Bachelor's Degree in Electrical Engineering
- Expected Graduation: Jun 2022
- Dean's List (All Terms)
- OSU GPA: 4.0

Reed College, Portland, Oregon
Aug 2017 – May 2018
- Reed Young Scholar in Mathematics
- One of three high school students selected to two math classes: Introduction to Analysis and Discrete Structures.

Portland State University (PSU), Portland, Oregon
Jan 2017 – Jun 2017
- Took Linear Algebra and Differential Equations as a high school junior.

Portland Community College (PCC), Portland, Oregon
Sep 2016 – Dec 2016
- Took Vector Calculus as a high school junior.

Work Experience

SIM Lab at OSU
Undergraduate Researcher | Sept 2020 – present | Corvallis, OR
- Just started.
- Professor in charge is Matthew Johnston.

Oregon State University Physics Department
College Physics Tutor | Oct 2019 – Mar 2020 | Corvallis, OR
- Earned straight As in college physics. My professor recommended me to another professor as a tutor.
- Answered student questions during lecture time.
- Met weekly with other learning assistants and the professor to create a plan to help students succeed.
- Held office hours for 2 hours a week.
- Graded homework and proctored exams.

Portland Public Schools
Math Tutor | Jul 2017 – Jul 2019 | Portland, OR
- Tutored Algebra I, Geometry and Algebra II to high school students.
- Worked for three summers.
- Volunteered summer 2017. On seeing how well I did, the principal offered to hire me back as a paid tutor for the next two summers.

Projects

Team Member | Project for Junior Design | Nov 2020 – Dec 2020 | Oregon State University
- Worked with a team of three to create a tuner that could recognize notes from mid-C to high-C. A single LED would light up for each note.
- Built an amplifier circuit for a microphone to receive the sound wave.
- Used Arduino Nano to record the data and to light up the correct LED.
- Created a MATLAB script, using the Fast Fourier Transform algorithm, to determine the specific note.

Team Member | Project for Digital Logic Design | Jun 2020 | Oregon State University
- Worked with a team of three using SystemVerilog to design circuitry for a PS/2 keyboard, a VCR Remote and an NES video game controller.
- The PS/2 keyboard moved a video game character around a VGA monitor and typed out numbers on a seven segment display.
- The VCR remote also typed out numbers on a seven segment display. The NES controller moved a character across a VGA monitor, as well.

Skills

Programming:	Circuit Design:	Other:
Software Languages: C/C++, Python, Rust	Simulation: LTspice	Firmware: Arduino IDE
Hardware Languages: SystemVerilog	Schematics: PCB with KiCad	Scripting: MATLAB