

# Mohammad Alholi

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## EDUCATION

Bachelor of Science (BS) in Electrical and Computer Engineering and Minor in Computer Science  
Oregon State University, Corvallis, OR GPA:3.59 12/2021-8/2025

## SKILLS

**Computer:** Microsoft Office Suite, C++, Python, FPGA, Digital logic, LTspice, Oscilloscope, multimeter, Quartus Prime, Circuit analysis, NGspice, electronics testing, python, C,

**Language:** Fluent in Arabic and English.

## RELEVANT PROJECTS

### Pied Piper Trap

12/2023 - 08/2024

- Developed and designed trapping devices to target stink bugs using advanced sensors and signal processing technology.
- Collaborate with an environmental research lab at OSU to deploy traps in field conditions.

### Custom Timer with Three Different Tones

04/2024-06/2024

- Developed a timer system with selectable tones (440 Hz, 660 Hz, 880 Hz) and adjustable brightness for an external 7-segment display by using DE-10 LITE FPGA.
- Designed a PCB for brightness control; current iteration uses a DC power supply, highlighting an area for ongoing improvement.
- Achieved smooth multi-digit display control through high-speed digit refresh, creating a seamless visual effect.

### IR-controller VGA Display project

01/2023-03/2023

- Developed a system for adjusting a television volume remote controller by displaying black blocks representing the volume on the VGA monitor.
- Our team employed Quartus Prime for decoding digital gate structures by using FPGA in our project, and we utilized Visual Studio to change the black blocks dimensions.

## EXPERIENCE

### Undergraduate Researcher

OPEnS Lab - Pied Piper - Oregon State University

04/2024 - present

- My work focuses on developing accessible, innovative environmental sensing technologies that tackle vital ecological challenges.
- Our primary task is leveraging advanced sensor technology and Fast Fourier Transform (FFT) analysis to detect and study insects that are detrimental to plant health.

### Undergraduate Learning Assistant

09/2023-present

Electrical fundamental - College of Engineering - Oregon State University

- Facilitated an assimilation of key engineering principles to support the completion of assignments.
- Elevated students' comprehension of essential engineering concepts through instructive techniques.

- Cooperated with students in laboratory environments to troubleshoot and resolve technical challenges.

Community Relation Representative

03/2023- 09/2023

*Etihad Culture Center- Oregon State University*

- In daily operations of the Cultural Resource Centers and/or initiatives and arrange the development of resources, projects, and initiatives.
- Led community events and connected peers with key resources to improve the student experience, in collaboration with DCE Center Directors and staff.

**VOLUNTEER EXPERIENCE**

Student Orientation Leader

01/2021- 09/2023

*Kuwaiti Club Association- Oregon State University*

- Engaged as an event presenter and participated in weekly meetings to improve student guidance.
- Organized termly gatherings and developed as well as distributed informational booklets for newly enrolled students to facilitate their transition, guidance, and integration into the university community in Corvallis each academic term.

**Certification**

Hazardous Waste Awareness Training

2024