E-mail: theodora.brewer@gmail.com

## **Education**

## Corvallis High School, Corvallis, Oregon,

2016-2020

Relevant coursework: Physics, AP Calculus AB, AP Statistics, Biology, Chemistry

### Willamette University, Salem, Oregon,

2020-2024

Bachelor of Science: Physics & Computer Science

Relevant coursework: Multivariable Calculus, Intro to Programming with Python,

Foundations of Advanced Math, Data Structures, Software Development, Introduction to

Machine Learning, Networks and Systems

## **Work History and Experience**

Lifeguard, Osborn Aquatic Center,

May 2017 - April 2021

- · Watched over 50+ Patrons and their well-being
- · Oversaw waterslide and lazy river safety

Lifeguard, Corvallis Country Club,

May 2020 - September 2020

- · Enforced rules to keep patrons safe
- · Checked the pH level of the pool to ensure water safety

Swim Instructor, Osborn Aquatic Center,

May 2020-August 2020

- Taught swim lessons to children aged 2-10 in groups of up to 5
- · Provided student feedback on swimming techniques and practices

### Pre orientation Steppin out leader, Willamette University

April 2021-August 2022

- · Co-lead group hikes for a pre-orientation program consisting of incoming freshman
- · Collaborated with other leaders to coordinate fun activities for participants and monitor their safety

## **Embedded Tutor for Physics**, Willamette University,

September 2021-May 2022

- · Sat in on classes and took notes for students who may have missed class
- · Held office hours once or twice a week where students could receive help with understanding the material

### IT help desk Technician, Willamette University,

August 2021-May 2024

- · Answered phone calls and assisted customers with technical issues
- · Created and assigned help desk tickets to their corresponding teams
- · Delivered various equipment for events and assisted with setups and breakdowns of equipment

### Physics Tutor, Willamette University,

September 2022-May 2023

- · Was available 4-5 hours a week to assist students with their homework or understanding of the material
- · Reviewed the material before holding office hours to be prepared to assist students

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### Dog Walker, Rover,

April 2022-September 2022

- · Met with owners before the first walk to gain an understanding of their requirements
- · Took dogs on walks for 30 minutes including picking up after them and maintaining any training the owners requested

### Retail Associate, Panera Bread,

June 2022-Sept 2022

- · Prepared food and ensured accurate orders
- · Ensured sanitation and cleanliness around the kitchen

## WITS Technical Assistant, Willamette University,

May 2023-May 2024

- · Assisted with installation of technology and equipment in 35-40 classrooms
- · Respond to classroom tech emergencies
- · Prep new computers and devices for deployment by reimaging
- Learn new operating systems such as Linux and work to improve customer experience

# **Volunteer Experience**

Stage Manager, Ashbrook Independent School, Corvallis, OR,

2017-2020

- · Served as the stage manager and assistant director for the annual pre-kindergarten through eighth, spring play
- · Managed up to six students working as crew members in three separate productions
- · Collaborated with a production crew of ten to design, visualize, and operate the production

Volunteer, Heartland Humane Society, Corvallis, OR,

2014-2015

- · Walked 5+ dogs around a nearby park and worked on socialization with people and other animals during the summer
- Ensured sanitation around the facility including, but not limited to, cleaning dog kennels, washing towels and blankets, and cleaning food and water bowls.

Assistant Swim Instructor, Osborn Aquatic Center, Corvallis, OR

# **Research Experience**

Fluid Dynamics, *Willamette University*, Summer 2021 Oil Water Separation, *Willamette University*, August 2021-May 2024

#### **Relevant Skills**

Use 3d modeling software (Basic understanding using Onshape)

3d printing

Computer programming: Python, C++, R

Microsoft suite (word, excel, etc.)

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## **Certifications**

Wilderness/Remote First aid (expired)
CPR (expired)
Babysitter
Lifeguard (expired)

### **Presentations**

*Improving a Shanker System for Bouncing Droplet Experiments*, oral presentation, Willamette University SCRP Symposium, Fall 2021

Differences Between Input and Output Impedance and their Affect on a Circuit, poster presentation, Willamette University, Spring 2021

2021 Willamette University SSRD, Spring 2022

Crops & Clicks A Click-Based Farming Game, oral presentation, Willamette University SSRD, Spring 2023

Furry Friends Forcast Analyzing the Effect of Breed and Characteristics on Shelter Animal Adoption Rates, oral presentation, Willamette University SSRD, Spring 2023 SCUDEM VIII 2023 Problem C: Dog Cannot Catch, oral presentation, SCUDEM, Fall

2023

Exploring Laser-Ablated Mesh for Enhanced Oil-Water Separation: Innovations in Environmental Remediation, oral presentation, Willamette University SSRD, Spring 2024

### **Personal Achievements**

Personal poem published in "Together 2020 Collection"

 $\underline{https://books.google.com/books/about/Together.html?id=RpzdzQEACAAJ}\\\underline{https://www.libraryofpoetry.com/together}$ 

Mention in a published article

https://ui.adsabs.harvard.edu/abs/2021APS..DFDQ10002B/abstract
https://scholar.google.com/citations?view\_op=view\_citation&hl=en&user=paWC
JSMAAAAJ&citation\_for\_view=paWCJSMAAAAJ:M3ejUd6NZC8C
https://ui.adsabs.harvard.edu/abs/2021APS..DFDQ10002B/abstract

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https://meetings.aps.org/Meeting/DFD21/Session/Q10.2

Outstanding Award Team modeling project SCUDEM

https://www.youtube.com/watch?v=suYF1ATEh\_k&list=PLHUyzRr\_S0Tuddy7rBE-NrcpXTiatSVqT&index=11

## **Personal Interests**

Band: Flute

Bass and alto flute

Jazz and marching band: Tenor saxophone

Swimming

Horseback Riding

## **Extracurricular activities**

Green Club, Corvallis High School's environmental activism club, Corvallis, Oregon,	2019-2020
· Collaborated with club members to organize events (i.e. Climate Strike), and participa	ited in climate change
protests.	
<ul> <li>Helped advocate for composting, and raise awareness about sustainability.</li> </ul>	
Swim Team, Willamette University,	2020-2021
Swim Team, Corvallis High School,	2016-2020
· Letter (4 years) and participated in State Swim meet	
· Co-team captain senior year	
Wind Ensemble, Corvallis High School, Played flute in State band competition,	2016-2020
Wind Ensemble, Willamette University,	2020-2022
University Concert Band, Willamette University,	2022-2024
Flute Ensemble, Willamette University,	2023-2023
Jazz Band, Corvallis, OR,	2017-2020
Physics Club, Willamette University,	2021-2024
Physics Club (President), Willamette University,	2022-2024