# MARISSA OHRAN

# **EDUCATION**

Bachelor of Science — Utah Valley University, Orem, UT, May 2023

MAJOR: **BIOINFORMATICS** 

MINOR: BIOLOGY Relevant Courses:

Computational:

• Molecular Evolution and Bioinformatics

• Fundamentals of Programming

- Data Analysis for Biologists
- Genomics
- Bioinformatics Capstone
- Object Oriented Programming
- Global Social and Ethical Issues in Computing
- Database Fundamentals
- Guided Research Experience

# Biology:

- Heredity
- Prehistoric Life
- College Biology 1&2
- Genetics
- Vertebrate Zoology

- Bioinformatics Data Skills
- Introduction to **Bioinformatics**
- Principles of Statistics
- Microbiome Bootcamp
- Discrete Math Structures I
- Intro to Data Structures and Algorithms
- Intro to Sys Admin Linux/UNIX
- Molecular Biology
- Principles of Chemistry 1&2
- Microbiology
- General Ecology
- Cell Biology
- Principles of Evolution
- Mycology

Associate of Science - Utah Valley University, Orem, UT, April 2015

MAJOR: UNIVERSITY STUDIES

# **SKILLS**

• Bilingual:

English

Spanish

• Problem Solving

• Pipetting

Microscopy

• DNA Extraction

• Introductory Phylogenetics

• Experienced in Microsoft Office, including Word, Excel, and PowerPoint

• Experienced with Google Drive,

including Docs, Sheets, and Slides

- Following Instructions
- Trained in coding processes including

R for Statistics, Python, and Command Line Interface

 Assembling and Assessing Genomes

# RESEARCH EXPERIENCE

# "Bacillus cereus tolerance to hand soaps"

Utah Valley University, Orem, UT Supervising Mentor: Lauren Brooks, PhD JANUARY 2023 - MAY 2023

- Selection of bacteria and biocides
- Zone of Inhibition testing
- Data comparison in R

# "Assembly of highly heterochromatic cactophilic Drosophila genomes"

Utah Valley University, Orem, UT
Supervising Mentor: Carl E. Hjelmen, PhD
JUNE 2022 - PRESENT

- Drosophila genome assembly using Flye and Canu assembly programs
- BUSCO assessment of assemblies
- Comparison of statistics in R

# "Potential relationship between sex chromosome size and lifespan"

Utah Valley University, Orem, UT
Supervising Mentor: Carl E. Hjelmen, PhD
NOVEMBER 2021 - JUNE 2022

- Data mining for genome size data for several species
- Data mining for lifespan data for several species
- Performing comparative analyses in R

#### "Aquatic fungal population of Utah Lake"

Utah Valley University; Orem, UT
Supervising Mentor: Geoffrey L. Zahn, PhD
AUGUST 2021 - DECEMBER 2021

- Assisted with sample collection
- Assisted with extraction of DNA
- Assisted with pipetting in preparation for PCR

# **ORAL PRESENTATIONS: \*Presenting Authors**

#### 2023

- Sifting through the mess of heterochromatin: An attempt at assembling heterochromatic *Drosophila* genomes. \*Ohran M, Hjelmen CE
  - Utah Valley University Showcase; Utah Valley University,
     Orem, UT
- Sifting through the mess of heterochromatin: An attempt at assembling heterochromatic *Drosophila* genomes. **Ohran M**, \*Hjelmen CE
  - Entomological Society of America 2023 Pacific Branch Meeting; Seattle, WA

# **POSTER PRESENTATIONS: \*Presenting Authors**

#### 2023

- Comparing highly heterochromatic cactophilic *Drosophila* genome assemblies. \*Ohran M, Hjelmen CE
  - Utah Conference on Undergraduate Research (UCUR) 2023;
     University of Utah, Salt Lake City, UT
- Assembly of highly heterochromatic cactophilic *Drosophila* genomes. \*Ohran M, Hjelmen CE
  - Utah Valley University Darwin Day; Utah Valley University,
     Orem, UT

#### 2022

- Assembly of highly heterochromatic cactophilic *Drosophila* genomes. \*Ohran M, Hjelmen CE
  - Entomological Society of America 2022 Joint Annual Meeting;
     Vancouver, BC, Canada (2nd place)
- Fishing for Fungi in Utah Lake. \*Ohran M, West B, De La Vega PJ, Simmons R, \*Tidwell A, Zahn GL
  - Utah Valley University Showcase; Utah Valley University,
     Orem, UT
- Effects of Aquatic Fungi in Utah Lake. \*Ohran M, West B, De La Vega PJ, \*Simmons R, Tidwell A, Zahn GL
  - Utah Conference on Undergraduate Research (UCUR) 2022; St.
     George, UT

#### 2021

- Fishing for Fungi in Utah Lake. \*Ohran M, West B, De La Vega PJ, \*Simmons R, \*Tidwell A, Zahn GL
  - Utah Valley University Undergraduate Poster Session; Utah Valley University, Orem, UT
- Primate Tail Evolution. Bowen L, Dodge R, \*Navratil M, \*Ohran M,
   Rowberry R
  - Utah Valley University Undergraduate Poster Session; Utah
     Valley University, Orem, UT

# **COMMUNITY OUTREACH**

- Feb 2023 Darwin Day, UVU Evolution & Bioinformatics Club
- March 2022 "SHEroes in STEM" Thanksgiving Point Event
- Feb 2022 Darwin Day, UVU Evolution & Bioinformatics Club

# **MEMBERSHIPS**

- UVU Evolution & Bioinformatics Club (Club Secretary Fall 2022)
- Entomological Society of America
- Pacific Branch of ESA

# **AWARDS**

• 2022 Entomological Society of America 2nd place undergraduate student competition poster

# **EMPLOYMENT**

**Evermore Park, Pleasant Grove, UT** — Animal Life Attendant JUNE 2020 - PRESENT

I educate patrons about a variety of animals, handling and presenting the animals during wildlife programs, as well as answering questions about them outside of the shows.

- Clean cages
- Safely handle the animals
- Present animals in shows

Christa McAuliffe Space Center, Pleasant Grove, UT — Supervisor NOVEMBER 2015 - PRESENT

I help run immersive spaceship simulators, telling stories set in a fictional universe where our patrons become the ship's crew and heroes of the story.

- Assist with the spaceship simulations
- Greet patrons as they arrive
- Respond to calls and emails, answering questions from patrons
- Organize and train volunteer actors
- Operate audio/video equipment
- Troubleshoot audio/video equipment
- Effectively use Google Docs and Google Sheets
- Maintain a clean and safe learning environment
- Ensure that patrons have the best experience possible