

Joshua R. Nilsson

Undergraduate Bioinformatics Student
Utah Valley University, Orem, UT

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Education

Utah Valley University, Orem, UT
Bachelor of Science: Bioinformatics, Biology Minor

Anticipated: Spring 2027

Relevant Coursework

- Principles of Chemistry I & II
- College Biology I & II
- Introduction to Bioinformatics
- Genetics
- General Ecology
- Marine Biology
- Genomics
- Phylogenetics
- Principles of Evolution
- Ethical Issues in Biology
- Fundamentals of Programming
- Object-Oriented Programming
- Principles of Statistics
- Bioinformatics Data Skills
- Data Analysis for Biologists

Utah Valley University, Orem, UT
Associate in Science: Biology

Graduated: Spring 2025

Research Experience

Utah Valley University, Orem, UT
Dunn Lab | Peer Research Collaborator
Research Advisor: Paul H. Dunn, PhD

Spring 2023 – Present

Investigating *C. fluminea* and *P. gyrina* Population Density in Relation to Water Quality at Utah Lake

- Sample along Utah Lakes shore utilizing a point-intercept sampling technique
- Perform field and lab water chemistry tests to assess various water parameters
- Utilize R Studio to perform statistical analysis and generate graphs

Utah Valley University, Orem, UT
Dunn Lab | Peer Research Collaborator
Research Advisor: Paul H. Dunn, PhD

Spring 2022 – Spring 2023

Assessing Parasite Prevalence and Population Dynamics of Crayfish in an Urban Pond Ecosystem

- Conducted field sampling of an invasive species of crayfish (*Faxonius virilis*)
- Dissected several specimens to determine the presence of any macroparasites
- Performed a mark-recapture study to determine population density of crayfish in Salem Pond

Brigham Young University, Provo, UT
Griffen Lab | Research Intern
Research Advisor: Doreen Cabrera, PhD

Fall 2019 – Spring 2020

Assessing Crayfish Metabolism and Behavior Across Sexual Morphs

- Conducted over fifty crayfish dissections and measured various organs wet and dry weights

- Performed behavioral assays to measure boldness and shyness
- Aided in manuscript preparation and source collecting for a scientific review article

Publications

Cabrera, D., Nilsson, J. R., & Griffen, B. D. (2021). The development of animal personality across ontogeny: a cross-species review. *Animal Behaviour*, 173, 137-144. <https://doi.org/10.1016/j.anbehav.2021.01.003>

Poster Presentations *Presenting Authors

2025

*Nilsson, J.R. & *Combs, S. (2025). Decrypting Cancer: Insights From Genomic Data. *UVU College of Science Research Symposium*, Orem, UT.

Bennett, N., Birch, A., Nelson, A., *Nilsson, J.R., Peterson, J., *Perkins, B., & Dunn, P. (2025). Investigating the relationship between the populations of clams and snails and water quality of Utah Lake. *UVU Showcase of Undergraduate Scholarly & Creative Works*, Orem, UT.

2023

*Swensen, T., *Nilsson, J.R., *Hamilton, K., *King, S., & Dunn, P. (2023). Estimating Population Sizes of Invasive Crayfish Species. *UVU Showcase of Undergraduate Scholarly & Creative Works*, Orem, UT.

2022

*Moulton, J., Swensen, T., *Slater, Z., *Nilsson, J.R., & Dunn, P. (2022). Sampling for Invasive Crayfish Species in Salem Pond. *UVU Showcase of Undergraduate Scholarly & Creative Works*, Orem, UT.

Awards and Honors

Scholarships

First-Gen Crew Resident Waiver (\$1,400)	Spring 2026
First-Gen Resident Waiver (\$1,400)	Fall 2025
First-Gen Crew Resident Waiver (\$1,900)	Spring 2025
TRIO: Student Support Services Resident Waiver (\$1,009)	Spring 2025
Utah Valley Ambassador Program Student Waiver (\$3,000)	Fall 2020

Awards

UVU Showcase of Undergraduate Scholarly & Creative Works 3rd Place	Spring 2025
Scholarly Activities Committee Grant (\$1,454)	Spring 2024

Honors

Dean's List - Utah Valley University	Fall 2024
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Memberships

Utah Valley University First-Gen Crew	Spring 2025 – Present
Grow the Flow Orem	Spring 2025 – Present
Utah Valley University Ambassador Program	Fall 2020 – Spring 2021

Relevant Work Experience

Biology and Computer Science Tutor

January 2026 – Present

TRIO Student Support Services, Utah Valley University, Orem, UT

- Tutor first-generation and low-income students one-on-one in their coursework
- Provide mentorship to students within the TRIO program
- Plan and execute skill and success workshops

Guest Services Explorer Guide

Summer 2022

Loveland Living Planet Aquarium, Draper, UT

- Provided guest assistance in person or over the phone
- Maintained a clean and sanitary environment for guests
- Managed aquarium memberships

Instructional Assistant/Teaching Assistant

August 2021 – December 2022

Biology Department, Utah Valley University, Orem, UT

- Performed a variety of student outreach tasks
- Tutored individuals who were struggling with course material
- Created study guides and PowerPoints to aid in student success
- Prepared and ran review sessions for students

Skills

- Statistics and Data Analysis in R and Python
- BASH Scripting/Linux
- Microsoft Office Suite
- Canva
- Presentation and Public Speaking
- Project Coordination
- Communication (Oral & Written)
- Phylogenetic Methods