LOGAN WALLACE

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EDUCATION

MS Bioinformatics and Genomics Apr 2022 - Dec 2023
University of Oregon

BS Cellular and Molecular Biology Sep 2014 - Dec 2018
Western Washington University

RESEARCH & PROFESSIONAL EXPERIENCE

Bioinformatician | *Fred Hutch Cancer Center* | Clinical Research Division Apr 2023 - Present

- Manage of one of the world's largest and most comprehensive pediatric leukemia datasets spanning genomic, transcriptomic, epigenetic and clinical outcome data.
- Identified a 'transcriptomic signature' that reliably predicts patient risk of relapse using machine learning modeling and survival analysis. Presented findings at 65th ASH Annual Meeting.
- Led computational efforts to characterize a novel isoform in the *CBL* gene by investigating exonic junctions with custom python script.
- Co-lead the Meshinchi lab's computational biology team. Performing diverse computational work from sequencing analysis pipeline development and maintenance, germline and somatic variant investigation, differential expression analysis and all other bioinformatics work.

Graduate Student Researcher | *InVivo Biosystems* | Oct 2022 - Feb 2023

- Outlined and executed a robust pipeline for analysis of *C. elegans* RNA-seq data, identifying transcription factors and regulatory pathways activation in response to drug treatment.
- Analyzed patterns of gene expression in test samples by leveraging publicly available microarray data, revealing up/downregulation of various 'gene modules'.
- Integrated data analysis into a formal document for clients using Rmarkdown.
- Presented project and experimental findings to InVivo Biosystems Research and Development team.

Research Associate | *Adaptive Biotechnologies* | Research and Development Jan 2019 - Sep 2021

- Automated an Illumina sequencing quality control workflow by developing a custom Python script, greatly decreasing time and increasing accuracy of analysis.
- Debugged scripts in collaboration with computational biologists.
- Designed and executed digital droplet PCR experiments investigating gene expression in cell lines.
- Presented findings to lab group and TCR Discovery branch of Adaptive.
- Trained new lab members in assay workflow, including theory and motivation behind each assay.

Research Assistant | *Brodhagen Lab* | Host-Microbe Interactions Mar 2018 - Dec 2018

- Developed fundamental laboratory skills including keeping a quality lab notebook, aseptic technique, data collection, etc.
- Visualized tissue structures using both scanning and tunneling electron microscopy.
- Generated accurate and thorough lab reports and presented them to the lab.

Research Assistant | *Wang Lab* | Genetics Jan 2018 - Dec 2018

- Developed models of aging and neurodegenerative disease such as Alzheimer's and mitochondrial disease using *Drosophila melanogaster.*
- Honed fundamental skills in data collection and recording within strict guidelines.

STEM Tutor | disAbility Resources for Students Jun 2018 - Dec 2018

- Tutored STEM concepts to peers contending with learning disorders.
- Developed curriculum outside of coursework adapted to the learning needs of the student considering student's performance in their course.

VOLUNTEER ACTIVITY

Student Mentor | Coding for Cancer Jul 2023 - Aug 2023

- Mentored Seattle area high school students from underrepresented backgrounds in basic R programming and application of new skills to example biological problem.

Education Committee Member | SoundBio Laboratory Aug 2020 - Jul 2021

- Collaborated with committee members in various fields to create STEM curriculum that was inclusive and accessible to children and adults from all backgrounds.

Elder Assistant | Whatcom CHORE 2016 - 2019

- Aided an elderly adult with a functional disability in maintaining their independence by up-keeping their residence.
- Performed common chores and scheduled regular visits based on the person's needs to meet HUD inspections.

SKILLS PROFILE

- Programming in Python and R
- Pipeline creation and management as well as job scheduling in HPC environments
- Data visualization with RShiny, Jupyter Notebooks, Markdown, etc.
- Proven problem solver
- Excellent verbal and written communication skills
- Data analysis, interpretation and presentation