

Mora Jove Groussman, Ph.D.

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Previously published as Ryan D. Groussman prior to 2024

SUMMARY

Bioinformatics expert with a Ph.D. in Oceanography, specializing in multi-modal analysis of high-dimensional environmental omics data in marine microbial ecology. Proven track record in developing novel algorithms and pipeline tools for large-scale genomic and transcriptomic analyses. Excited by cutting-edge research on messy real world data.

KEYWORD SKILLS

Data Science: Python (biopython, numpy, pandas), R (Bioconductor, tidyverse), Linux/Unix shell scripting, version control (git, github), SLURM, Docker, Singularity, machine learning

Bioinformatics: genomics, transcriptomics, proteomics, metagenomics, data visualization, sequence annotation

PROFESSIONAL EXPERIENCE

Postdoctoral Scholar, University of Washington, School of Oceanography (2023 – 24)

- Designed and published MarFERReT, a comprehensive marine microbial eukaryote protein reference library, adding hundreds of new species and validating tens of millions of reference proteins
- Developed pipelines and novel algorithms for reproducible cross-validation of genetic reference data, enhancing the accuracy of marine microbial community analyses
- Generated publicly-available data repositories for nearly 200 million environmental gene sequences with functional and taxonomic annotations, facilitating collaborative research in marine microbiology

Research Assistant, University of Washington, School of Oceanography (2016 – 22)

- Created bioinformatics data pipeline for machine learning research on environmental data
- Spearheaded data processing and annotation for NGS data from 300+ marine samples
- Innovated novel visualizations for exploring high-dimensional transcriptomic datasets by performing multi-variate statistical analysis involving over ten thousand gene functions
- Published 10 peer-reviewed papers and presented research at 5 international conferences, contributing significantly to the field of marine microbial ecology

EDUCATION

- Ph.D. in Oceanography, University of Washington (2022)
- M.S. in Oceanography, University of Washington (2018)
- B.S. in Molecular, Cellular, and Developmental Biology, University of Washington (Mar 2016)