John Lawrence Darcy, PhD

Senior Scientist (Bioinformatics)
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Summary
Bioinformatician and Biostatistician with 14+ years of experience supporting cross-disciplinary research through development of reproducible analytical pipelines and statistical software for multi-omic datasets (RNA-seq, proteomics, metagenomics). Expertise in R, Python, C++, high-throughput sequencing analysis, and cloud/HPC workflows.

Selected Impact

- Reduced data QA/QC processing turnaround time by 98% through automated pipelines.
- Developed six production R packages, including one commercialized analytical tool.
- Improved GSEA algorithm performance (about 1.5x faster, up to 20% increased power).
- Built cloud-native bioinformatics pipelines on AWS for production-scale omics data.

Professional Experience

Senior Scientist (Bioinformatics), Jonah Ventures 04/2025 – Present

- Designed and scaled a cloud-native ONT metabarcoding pipeline (65+ amplicons, AWS).
- Led bioinformatics engineering for RNA-baits metagenomic enrichment platform workflows.
- Developed reproducible data processing pipelines for environmental DNA workflows.

Bioinformatics Scientist, Standard BioTools (formerly SomaLogic) 10/2021 – 10/2024

- Built R Shiny applications for non-computational scientists.
- Designed and deployed an automated QC pipeline reducing turnaround time by 98%.
- Built internal R packages to standardize PHI-compliant workflows.

NIH NLM Computational Biology Postdoctoral Fellow, CU Anschutz 10/2018 – 10/2021

- Developed and published the R package *specificity* (R + C++).
- Published a mathematical model for temporal patterns in microbiome data.

Postdoctoral Researcher (Mycology), University of Hawaii 08/2017 – 10/2018

Technical Skills
R (expert), Python, Shell (bash), C++, AWS, HPC, SQL, CI/CD, Git, R Shiny, ggplot2, Plotly.

Education
PhD, Ecology and Evolutionary Biology, University of Colorado Boulder (2017)
BA, Molecular, Cellular, and Developmental Biology, University of Colorado Boulder (2010)

Publications: 44+ peer-reviewed co-authored publications, 9 first-author publications.