# AVA HOFFMAN
Data Scientist · Molecular Ecologist

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## EXPERIENCE

### Fred Hutch Cancer Center · Senior Staff Scientist
07/2022 - present · Seattle, WA (remote)

- Built outreach software for publishing content, previewing data, and helping scientists comply with NIH policies using Shiny, GitHub Actions, and other tools
- Co-lead, analyzed, and curated data for (BioDIGS, a soil microbe genetics research consortium of over 100 students and faculty
- Co-lead outreach and user research for the NIH AnVIL Platform, enabling genomic data science via cloud computing for 500+ users
- Led $579k NIH-funded program ("GEMs") that designs open-source genomic data science training modules with under-resourced colleges
- Led and developed $200k/yr Data Science for Environmental Health program, educating 40 trainees and public health government professionals annually
- Taught graduate-level courses in R programming and community data science consulting
- *Note that this work was conducted at Johns Hopkins University from 05/2021 - 06/2022.*

### Johns Hopkins University · Postdoctoral Fellow
03/2020 - 05/2020 · Baltimore, MD

- Used bioinformatic tools to quantify genomic patterns among 1000+ plants adapted to 6 city landscapes

### Boston Consulting Group · Data Scientist
03/2019 - 03/2020 · Boston, MA

- Productionalized PySpark pipeline describing and modeling client's 20K+ commercial banking customers for better product recommendations & risk intervention
- Designed & hosted fully customized RShiny dashboard for reducing internal carbon emissions by 30% in 5 years

### Colorado State University · USDA NIFA Fellow
01/2017 - 12/2018 · Fort Collins, CO

- Led the Blue Grama Diversity Project, implementing hierarchical Bayesian models and analyzing 9,000+ genomic features to understand plant traits from population genetics

## EDUCATION
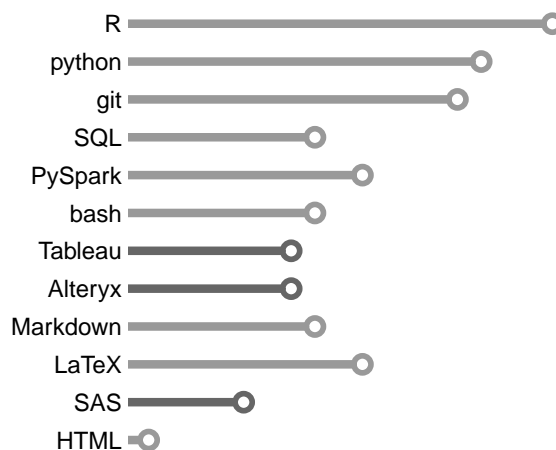
### PhD Ecology · Colorado State University
05/2019 · Fort Collins, CO

### BS Biology · University of Virginia
05/2012 · Charlottesville, VA

## SKILLS



statistics

Bayesian methods (RStan) · hierarchical models · mixture models · multivariate statistics · ANOVA · MANOVA · PERMANOVA · dimensionality reduction · repeated measures

supervised learning

large language model APIs · random forest · time series · linear, nonlinear, logistic regression · LDA · SEM

unsupervised learning

PCA · NMDS · k-means / hierarchical clustering · feature engineering

## ACHIEVEMENTS

### Excellence in Teaching Award
2022 (2x), 2023 (2x), 2024 (2x) · Johns Hopkins University

### 29 peer-reviewed publications
2010-2024 · Google Scholar