

AVA HOFFMAN

Data Scientist · Ecologist

avamariehoffman@gmail.com
(804) 687-7476
/in/avahoffman
avahoffman
www.avahoffman.com



EXPERIENCE

Fred Hutch Cancer Center · Senior Staff Scientist

07/2022 - present · Seattle, WA (remote)

- Led \$579k NIH-funded program ("**GEMs**") that designs open-source genomic data science training modules with under-resourced colleges
- Developed and taught \$200k/yr **Data Science for Environmental Health program**, educating 40 trainees and public health government professionals annually
- Co-lead outreach and user research for the NIH **AnVIL Platform**, enabling genomic data science via cloud computing for 500+ users
- Built outreach software for publishing content, previewing data, and helping scientists comply with NIH policies using Shiny, GitHub Actions, and other tools
- Co-lead and curated data for (**BioDIGS**, a soil microbe genetics research consortium of over 100 students and faculty at under-resourced institutions.



Johns Hopkins University · Faculty Associate

05/2021 - present · Baltimore, MD

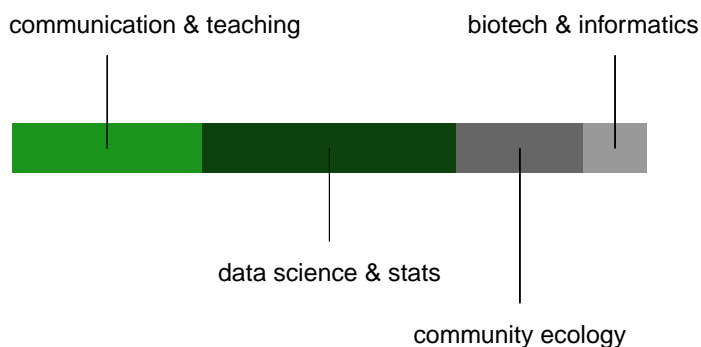
- Started projects listed above
- Taught grad-level **Introduction to R for Public Health Researchers (7x)**, including wrangling, stats, and visualization essentials
- Taught grad-level **Baltimore Community Data Science (2x)**: consulting-like service learning course that partners with community organizations to meet their data-related needs



Johns Hopkins University · Postdoctoral Fellow

03/2020 - 05/2020 · Baltimore, MD

- Led the Urban Evolution Comparative Study, quantifying how 1000+ plants adapted to 6 city landscapes at the genomic level



EDUCATION



PhD Ecology · Colorado State University

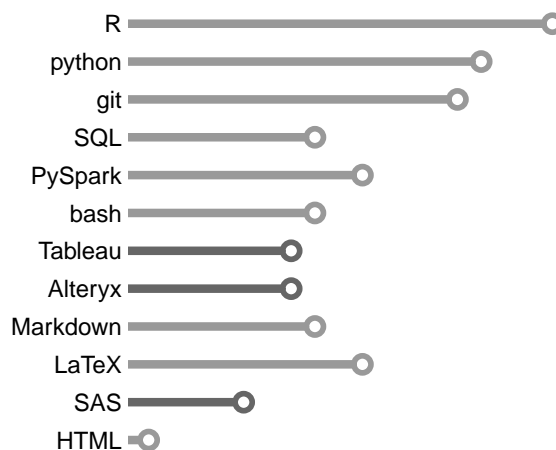
05/2019 · Fort Collins, CO



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

2010-2020 · [Google Scholar](#)

AVA HOFFMAN

Data Scientist · Ecologist

avamariehoffman@gmail.com

(804) 687-7476

/in/avahoffman

avahoffman

www.avahoffman.com



EXPERIENCE (cont.)



Boston Consulting Group · Data Scientist

03/2019 - 03/2020 · Boston, MA

- Productionalized PySpark pipeline describing 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



Insight Data Science · Data Science Fellow

09/2018 - 03/2019 · Remote Program

- Developed and launched **National Perks Project** to improve National Park visitor experience, modeling crowds over 500+ months & accommodating user preferences
- Built a fully customized web app using Git, Python, & Flask, providing visitors with actionable recommendations & access to further resources



Colorado State University · USDA NIFA Fellow

01/2017 - 12/2018 · Fort Collins, CO

- Proposed & established the **Blue Grama Diversity Project** to reveal genetic diversity & guide conservation in a key grass species, while communicating take-home facts to the Front Range non-science community
- Pioneered genomic sequencing & population delineation using 9,000+ genomic features
- Modeled hierarchical linkages between genomics, populations, & plant traits, developing analytical workflows using R & RStan