AVA HOFFMAN
Data Scientist · Ecologist

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EXPERIENCE

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

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

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
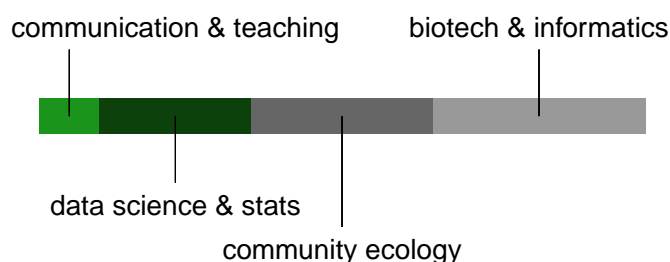09/2018 - 03/2019 · Remote Program

- 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

communication & teaching   biotech & informatics

data science & stats
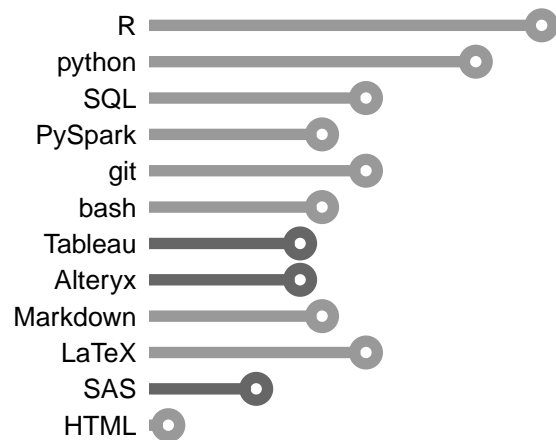
community ecology

EDUCATION

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

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

SKILLS

R
python
SQL
PySpark
git
bash
Tableau
Alteryx
Markdown
LaTeX
SAS
HTML

statistics

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

supervised learning

random forest · time series · linear, nonlinear, logistic regression · LDA · SEM

unsupervised learning

PCA · k-means · feature engineering

ACHIEVEMENTS

Sustainability Leadership Fellow
2017-2018 · Colorado State University

Vice President for Research Fellow
2016-2017 · Colorado State University

18 peer-reviewed publications
2010-2020 · Google Scholar