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avahoffman www.avahoffman.com



### **EXPERIENCE**



# Data Scientist Boston Consulting Group - Gamma

Boston, MA · March 2019+

- Built PySpark productionalized ensemble logistic regression model (>85% accuracy) for assessing risk in commercial customers of a Fortune 500 Financial Institution
- Implemented repository logging and error handling for an automotive manufacturer's inventory intelligence software
- Lead theory and methodology workshops for client teams

# Data Science Fellow

Insight Data Science

Remote Program · September 2018 - March 2019

- Launched National Perks Project to improve visitor experience in crowded National Parks
- Leveraged large National Park Service, NOAA, & web-scraped datasets to forecast crowds (FB Prophet and ARIMA models) & weighted user preferences with euclidean distance for personalized experience
- Built a customized web app using Git, Python, Flask, & Heroku providing visitors with an actionable recommendation & access to further resources

# NIFA

### USDA NIFA Predoctoral Fellow Colorado State University

Fort Collins, CO · January 2017 - December 2018

- Designed Blue Grama Diversity Project to inform natural area stakeholders about genetic diversity in a foundational prairie grass, blue grama
- Pioneered genomic feature detection (sequencing) of a key grass species, discovering >9,000 genomic features to cluster populations & guide conservation from 15GB of data
- Modeled hierarchical linkages between genomics, populations, & plant appearance, developed analytical workflows using R and RStan, & communicated genetic clusters in ggplot+shiny app
- Facilitated 6-member team collaboration for a large-scale project

#### Doctoral Researcher Colorado State University

Fort Collins, CO  $\cdot$  August 2013 - December 2016

- Discovered diversity within key prairie grasses in response to drought to guide management of grassland resources
- Optimized analytics pipeline for genes & contrasted fluctuation of >100,000 genes under different conditions using bash scripts
- Quantified predictive relationships among plant, traits, & ecosystem by implementing trait feature reduction, Bayesian hierarchical models, path analysis, module clustering, literature data mining, linear regression, & meta-analysis in R, leading to domain innovation

## **EDUCATION**



PhD · Ecology · Colorado State University

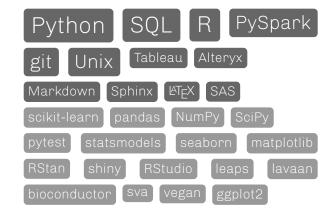
Fort Collins, CO · May 2019



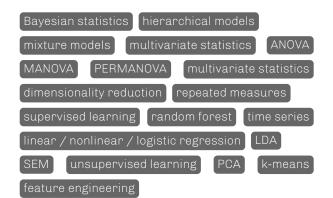
BS · Biology · University of Virginia

Charlottesville, VA · May 2012

# TOOLS & PACKAGES



# **TECHNIQUES**



# **ACHIEVEMENTS**



**Sustainability Leadership Fellow** 

Colorado State University · 2017-2018



Vice President for Research Fellow

Colorado State University · 2016-2017



14 peer-reviewed publications

Google Scholar · 2010-2019