

Christopher Hamm

Lead Data Scientist

Carmichael, CA 95608
USA

✉ butterflyology@gmail.com
📄 [butterflyology.github.io](https://github.com/butterflyology)

Education

- 2012 **PhD**, *Michigan State University, Entomology.*
- 2012 **PhD**, *Michigan State University, Ecology, Evolutionary Biology & Behavior.*
- 2008 **MS**, *California State University, Fresno, Biology.*
With Distinction
- 2004 **BS**, *California State University, Fresno, Biology.*
Magna Cum Laude

Experience

- 2018–Present **Data Science Training Lead**, *Bayer - Crop Science.*
Naveen Singla, supervisor.
Achievements:
 - Develop, promote, and distribute best practices curriculum for enterprise data scientists
 - Organize, coordinate, mentor, and teach data fluency workshops
 - Develop proprietary curriculum for company specific workflows
 - Create and implement strategic vision to improve company-wide digital fluency
 - Create neural network forecasting models
- 2017–2018 **Data Scientist**, *Monsanto Company.*
Shawn L. Stricklin, supervisor.
Achievements:
 - Developed and implemented a program to simulate the vegetable breeding pipeline
 - Implemented predictive modeling to predict genotype sample submission frequency
 - Organized and coordinated Software Carpentry and Instructor Training workshops
 - Created gradient boosted regression model to identify disease susceptible genotypes
 - Provided *ad hoc* statistical support
- 2016–2017 **Postdoctoral researcher**, *University of California, Davis.*
C. Titus Brown, supervisor.
Achievements:
 - Oversaw development and deployment of Reproducible Research with R lessons for the Data Carpentry Foundation
- 2014–2016 **Postdoctoral scholar**, *University of Kansas.*
James R. Walters, supervisor.
Achievements:
 - Developed tools to analyze large empirical and simulated molecular datasets
 - Implemented and interpreted complex statistical modeling on ecological and genomic data, including differential expression analysis
 - Formalized novel statistical models to describe bacterial infection frequency while correcting for relatedness

2012–2014 **Postdoctoral researcher**, *University of California, Davis*, Davis, California.

David J. Begun and Michael Turelli, supervisors.

Achievements:

- Coordinated multi-laboratory effort to assess the use of a bacterial infection to control an invasive insect
- Executed comparative genomic analysis of invasive species
- Created bioinformatics pipeline to import, trim, and map genomic data

Statistical methods

Deep learning in R & Python using Keras and TensorFlow

Deep learning in python with pytorch and fastai

Machine learning in R & python

Linear and mixed-effects models in R

Forecasting with ARIMA and prophet

Hierarchical modeling and inference in R and stan

Computer skills

Data analysis R, Python, SQL

Reproducibility knitr, RMarkdown, L^AT_EX, jupyter notebooks

Version control git, GitHub, GitLab

Other BASH