Christopher Hamm

Data Scientist

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Education

PhD, *Michigan State University*, *Entomology*. **2012**

PhD, *Michigan State University*, *Ecology, Evolutionary Biology & Behavior*. **2012**

MS, *California State University, Fresno*, Biology. **2008**
With Distinction

BS, *California State University, Fresno*, Biology. **2004**
Magna Cum Laude

Experience

Vocational

Data Science Training Lead, *Bayer Crop Sciences*. **2018–Present**
Naveen Singla, supervisor
Achievements:
- Develop, promote, and distribute best practices curriculum for enterprise data scientists
- Organize, coordinate, and teach data fluency workshops
- Develop proprietary curriculum for company specific workflows
- Create and implement strategic vision to improve company-wide data fluency
- Provide *ad hoc* statistical support

Data Scientist, *Monsanto Company*. **2017–2018**
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

Postdoctoral researcher, *University of California, Davis*. **2016–2017**
C. Titus Brown, supervisor.
Achievements:
- Oversaw development and deployment of Reproducible Research with R lessons for the Data Carpentry Foundation

Postdoctoral scholar, *University of Kansas*. **2014–2016**

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

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

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: `RMarkdown`, LaTeX

Version control: `git`, GitHub

Other: `BASH`