

Christopher Hamm

Lead Data Scientist

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Summary

Lead Data Scientist with a strong research and experimental background and 10+ years experience using reproducible methods and rigorous analysis to generate unique insights and create value. Strong teacher using research-based pedagogy and a Software Carpentry Foundation Trainer.

Experience

2022–Present **Lead Data Scientist**, *Nestlé Purina - Data Analytics*.
Kyle Herrman, supervisor.

- **Technical Leadership**
 - Created linear optimizer that saved \$600,000/month in shipping costs
 - Created Retail Sales Anomaly Detector to ensure continuous profitable growth
 - Mentored new hire and intern data scientists

2018–2022 **Lead Data Scientist**, *Bayer - Decision Science*.
Nalini Polavarapu, supervisor.

- **Technical Project Management:**
 - Supervised 30+ statistical projects
 - Led a team of Data Scientists and Educators
 - Develop, promote, and distribute best practices curriculum for enterprise data scientists
 - Develop proprietary curriculum for company specific workflows
 - Created neural network forecasting models for supply chain
- **Mentorship & Training:**
 - Platinum Pinnacle Award for creating and implementing company-wide digital fluency curriculum
 - Organize, coordinate, mentor, and teach data fluency workshops - instructing over 1500 learners in 8 programming languages/programs across 55 workshops
 - Coordinate 44 digital fluency trainers
- **Member:**
 - Data Science Center of Excellence
 - Model Governance Team
 - Data Management Team

2017–2018 **Data Scientist**, *Monsanto Company*.
Shawn L. Stricklin, supervisor.

- **Individual Contributor:**
 - Developed and implemented a program to simulate the vegetable breeding pipeline
 - Implemented predictive modeling to predict genotype sample submission frequency
 - Created gradient boosted regression model to identify disease susceptible genotypes
 - Provided *ad hoc* statistical support to 10 plant breeders
 - Organized and coordinated Software Carpentry and Instructor Training workshops

- 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

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

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, prophet, and LSTM

Hierarchical Bayesian modeling and inference in R and stan

Computer skills

Data analysis R, Python

Reproducibility docker, knitr, RMarkdown, \LaTeX , jupyter notebooks,

Cloud AWS ML Pipeline & SageMaker, Applied AI with IBM Watson, MS Azure computing

Misc. git, GitHub, BASH, SQL