Eric Scott

Ecological Modeler | Research Software Engineer

I'm a researcher and educator with experience doing and teaching statistical modeling, data visualization, and reproducible research. I'm looking to transition into an industry role where I can apply my skills and continue to learn as part of a team.

EDUCATION

2020 — **Tufts University**
Ph.D. in Biology
Medford, MA

2010 — **University of Illinois at Urbana-Champaign**
M.S. in Ecology, Evolution, and Conservation Biology
Urbana, IL

2006 — **Whitman College**
B.A. in Biology
Walla Walla, WA

RESEARCH EXPERIENCE

Present | 2020 — **Postdoctoral Associate**
Wildlife Ecology and Conservation, University of Florida
Remote

- Analyzed a decade of plant demography data with generalized additive models to determine the delayed and seasonal effects of climate and habitat fragmentation
- Projected plant population dynamics under climate change scenarios defined in the Coupled Model Intercomparison Project, phase 6 (CMIP6)
- Mentored undergraduates in data analysis and best practices for collaborative, reproducible research

2020 | 2014 — **Graduate Researcher**
Biology Department, Tufts University
Medford, MA

- Managed projects through entire research lifecycle
- Combined field experiments, metabolomics, and modeling to gain insights into impacts of climate change on tea quality
- Provided statistics and programming consultation to projects inside and outside of my main lab group
- Mentored undergraduates performing independent research in field, lab, and computational settings

2010 — **Research Assistant**
Colorado Natural Heritage Program
Fort Collins, CO

- Worked in teams to survey soil and vegetation in remote wetlands throughout Colorado
- Entered data in Microsoft Access relational database

CONTACT INFO

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SKILLS

Statistics & modeling,
Data visualization,
Data wrangling,
Data validation,
R package development,
Git & GitHub,
High Performance Computing (SLURM),

MODELING

GLMs
Hierarchical models
Multivariate data analysis
GAMs

R PACKAGES

tidyverse
rmarkdown
targets
pointblank

*This resume was made with the R package **pagedown**.*

Last updated on 2022-03-03.

SOFTWARE DEVELOPMENT EXPERIENCE

2020

webchem

rOpenSci — Remote

- R Consortium funded development
- Collaborated via git/GitHub and Slack
- Unified UX/UI across package
- Wrote new functions to integrate across data sources

2019

bumbl

Crone Lab, Tufts University — Medford, MA

- Adapted analysis code into an R package
- Optimized code for speed and reliability
- Wrote unit tests and implemented continuous integration
- Package reviewed by rOpenSci

SELECTED TEACHING EXPERIENCE

2020

Ecological Statistics and Data

Instructor of Record at Tufts University — Medford, MA

- Developed curriculum to teach probability theory, generalized linear models and mixed-effects models using ecological examples
- Created assignments and assessments in R Markdown
- Mentored a teaching assistant in charge of a lab section

2018 | 2016

R for biostatistics

Teaching assistant for Biostatistics at Tufts University — Medford, MA

- Developed and taught a mini-course introducing biostatistics students to R
- Developed assignments and handouts using R Markdown
- Assessed student performance and gave constructive feedback

SELECTED PUBLICATIONS

2021

Delayed effects of climate on vital rates lead to demographic divergence in Amazonian forest fragments.

Global Change Biology 2021; 28:463-479. DOI: 10.1111/gcb.15900

Scott ER, Uriarte M, Bruna EM

2021

Using the Right Tool for the Job: The Difference between Unsupervised and Supervised Analyses of Multivariate Ecological Data.

Oecologia, 2021; 196:12-25. DOI: 10.1007/s00442-020-04848-w

Scott ER and Crone EE