# Fric Scott

### Educator | 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 for opportunities where I can apply my skills as an educator and data scientist as part of a team.

### **EDUCATION Tufts University** 2020 • Medford, MA Ph.D. in Biology University of Illinois at Urbana-Champaign 2010 O Urbana, IL M.S. in Ecology, Evolution, and Conservation Biology Whitman College 2006 • Walla Walla, WA

# SELECTED TEACHING EXPERIENCE

Ecological Statistics and Data 😯 2020

B.A. in Biology

- Medford, MA Instructor of Record at Tufts University
- · 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

R for biostatistics 😯 2018

2016

2011

Teaching assistant at Tufts University

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

General Biology I 2014

Faculty at Front Range Community College

- **♀** Fort Collins, CO
- · Taught introductory biology to students with a wide variety of backgrounds and career goals
- · Created and continuously revised curriculum and assessments using evidence-based pedagogy
- · Adapted curriculum for a student population with a large proportion of combat veterans and non-traditional students

### CONTACT INFO

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## **SKILLS**

Curriculum development Statistics & modeling Data visualization Data wrangling Data validation R package development Git & GitHub

### R PACKAGES

tidyverse rmarkdown / blogdown targets pointblank usethis / devtools

This resume was made with the R package pagedown.

Last updated on 2022-03-10.

## 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



### SELECTED WRITINGS

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

2020

Muffins vs. Cupcakes: Round 2

Case study demonstrating supervised and unsupervised multivariate analyses. https://www.ericrscott.com/post/cupcakes vs muffins round 2/

2021

**Treat Your Treatments as Continuous** 

A plea to ecologists to stop binning continuous data to do ANOVAs. https://www.ericrscott.com/post/stop\_binning/



# SOFTWARE DEVELOPMENT EXPERIENCE

2020

webchem 😯

rOpenSci

Remote

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