

Katie Scranton

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I am a PhD data scientist who loves solving complex statistical challenges to better analyze and visualize data. I'm an experienced public speaker and author, dedicated to inclusivity in the STEM fields, most recently as the founder and organizer of R-Ladies Los Angeles.

Education

Ph.D., University of California, Berkeley 2006 - 2012
Development of frequentist and Bayesian statistical models for hierarchical experimental designs in ecology

B.Sc., McGill University 2000 - 2005
Major in Biology, Minor in Mathematics and Statistics

Professional Experience

Lecturer, University of California, Los Angeles 2018
Mathematics for Life Scientists. Introduction to the use of calculus in the analysis of biological systems.

Postdoctoral Fellow, University of California, Los Angeles 2016 - 2018
Development of stochastic population models and Bayesian statistical frameworks for insect populations.

Postdoctoral Fellow, Yale University 2012 - 2015
Development of stochastic community models and validation of novel statistical methods across data sets.

National Science Foundation Fellow, University of California, Berkeley 2010 - 2012
Development of a novel Bayesian statistical framework (ABC) for experimental time series data.

Graduate Student Researcher, University of California, Berkeley 2007 - 2010
Application and extension of survival analysis (time-to-event) models to insect life cycle data.

Skills

Statistical Modeling: hypothesis testing, bootstrap resampling, mixed-effects regression, survival analysis, classification theory, approximate Bayesian computation (ABC), Monte Carlo algorithms.

Numerical Modeling: linear algebra (matrix modeling), ordinary and delay differential equation modeling, stochastic branching processes, Gillespie algorithms.

Programming Languages and Software: R, Python, \LaTeX . Some experience with Matlab and Mathematica. Familiar with Fortran and C++

Communication: Experienced public speaker for audiences including potential donors (non-technical), university students, and technical experts. Author on 9 peer-reviewed publications.

Service and Outreach: Founder and Organizer of R-Ladies Los Angeles, Women In Science at Yale mentor, Coordinator and Planning Committee member, Expanding Your Horizons conference.

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