

# MICHAEL M. FULLER

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## Employment

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### **Senior Data Scientist**                      **Xpansiv Data Systems**                      **Feb 2018 - present**

- Analytics on commodity data streams; pattern discovery and process analysis
- Statistical and machine learning approaches

### **Statistician, Data Analyst**                      **Impact Analysts LLC**                      **Nov 2012 - Feb 2018**

- Servicing environmental, academic, and regulatory (federal, state, and municipal gov) sectors
- experimental design, data analysis, advising, technical writing, policy recommendations
- software development and computer simulation /visualization in R, C++, and MATLAB

### **Adjunct Asst. Professor of Biology**                      **University of New Mexico**                      **Jan 2011 - Mar 2018**

- Conduct research in ecology, advise faculty and students, teach course in Biological Statistics

## Education

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- Ph.D. Biology, University of New Mexico, Albuquerque. GPA: 3.97
- MS in Zoology, University of Oklahoma, Norman.                      GPA: 3.40
- BS in Zoology, Cal Poly State University, Pomona.                      GPA: 3.29
- Graduate Coursework: Intro to Programming with C++, Linear Algebra, Differential Eqns, Nonlinear Dynamics, Ecological Modeling, Evolutionary Genetics, Complexity Science.
- NSF Graduate Fellowship; Santa Fe Institute Complex Systems Summer School.
- Undergraduate Coursework: statistics, biometrics, advanced biometrics, ecology, genetics, cellular biology.

## Technical Experience

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Experimental design and statistical analysis using frequentist, Bayesian, and machine learning approaches.

## Selected Projects, Experience

- **Georaster Processing.** Developed R programs to combine US forest inventory data with georaster-based environmental data to generate new geospatial rasters of predicted tree species composition. R, UNIX, ArcGIS.
- **Statistical Analysis, Experimental Design, Employee Training.** Quantified population trends for sensitive species. Provided employee training in experimental design and established designs for baseline studies. R.
- **Visualization Software.** Developed data conversion & graphing software for eddy flux research. MATLAB.
- **Module for Open Source Platform.** Classes /modules for simulating forest harvests with SORTIE-ND. C++.
- **Author, peer-reviewed publications:** 20 publications in peer reviewed scientific journals.
- **College Professor:** conducted research and taught biological statistics at Univ. of Toronto and Univ. New Mexico.

## Languages and Technologies

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- R, C++, Python, MATLAB
- Object Oriented programming, machine learning, version control, graphics production, UNIX /Linux, MS Office.

## Communication Skills

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- **First Place Oral Presentation.** Cal Poly Pomona Research, Scholarship & Creative Activities Conference.
- **Second Place Oral Presentation.** Univ. of New Mexico Biology Dept. annual Research Day.
- **National Conference Speaker:** Presented research talks at annual meetings of the Ecological Society of America.
- **Published Author.** Peer reviewed research articles in ecology and resource management journals in US, Canada.
- **Peer Reviewer.** Referee for scientific journals: Ecology, Ecology Letters, Ecosphere, Ecological Modelling.