

# Andrew Gaidus

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## Education

**Yale University, School of Forestry & Environmental Studies**, New Haven, CT

Master of Environmental Management (MEM), 2013

- **Concentration:** Quantitative Policy Analysis
- **Relevant Coursework:** Spatial Statistics, Regression Modeling, Econometrics, Advanced Microeconomics, Energy Economics, Resource Economics, Vector GIS, Raster GIS, Python Scripting for GIS, Spatial Databases

**Williams College**, Williamstown, MA

Bachelor of Arts in Environmental Policy, Cum Laude, 2011

- **Relevant Coursework:** Microeconomics, Macroeconomics, Natural Resource Economics, GIS and Remote Sensing, Multivariable Calculus

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## Experience

**Pacific Institute for Research and Evaluation**, Oakland, CA

October 2013 – Present

Research Associate

- Serve as in-house data scientist and spatial data analyst at a national public health policy research institute where I conduct econometric and spatial analysis for the organization's research
- Manage and analyze large, complex, hierarchical, data systems using open-source data science, GIS, and statistical Python libraries
- Build spatial econometric models that account for spatially structured relationships and misalignments to measure patterns in and correlates with various problematic public health outcomes
- Work with teams of researchers on project development and ensuring the quantitative analyses meet their goals: conceptualizing research questions based on available data, developing an analytical strategy that addresses these specific questions, and interpreting the results of the analyses
- Author methods and results sections for peer reviewed published papers ([https://www.researchgate.net/profile/Andrew\\_Gaidus](https://www.researchgate.net/profile/Andrew_Gaidus))

**Boundary Solutions**, Mill Valley, CA

July 2013 – October 2013

Data Manager & GIS Analyst

- Managed and compiled geospatial parcel boundary data, tax roll data, and other real estate data collected from over 1,100 counties across the U.S.
- Used Python to clean raw data in order to provide clients with normalized data from differing sources.

**Yale School Forests, Yale University**, New Haven, CT

June 2012 – July 2013

Data Manager & GIS Analyst

- Built and managed spatial databases containing GIS Data for 10,800 acres of forestland in 7 discrete forests owned by Yale University
- Updated stand boundaries, calculated tree species inventories, and created forest management maps used for locating and planning timber sales

**The Nature Conservancy**, Boston, MA

June 2012 – August 2012

GIS and Conservation Science Intern

- Worked in the Nature Conservancy's Eastern Conservation Science division to build, manage, and analyze spatial ecological datasets to help land trusts prioritize conservation efforts
- Built and analyzed raster datasets as part of a large-scale mapping project that used a random forest classification model to predict terrestrial habitat type

## Continuing Education

### John's Hopkins University, Coursera, Data Science Specialization

January 2015 – May 2016

- **Coursework:** The Data Scientist's Toolbox, R Programming, Getting and Cleaning Data, Exploratory Data Analysis, Reproducible Research, Statistical Inference, Regression Models, Practical Machine Learning, Developing Data Products, Data Science Capstone
- **Certificate:** <https://www.coursera.org/account/accomplishments/specialization/SSWXB67MQHFJ>

### University of California, Berkeley, Geospatial Innovation Facility

May 2015

#### Spatial Data Science Bootcamp

- Three-day intensive workshop covering spatial databases (PostgreSQL / PostGIS); open-source tools for spatial data analysis (Python, R); and web-mapping (Leaflet, D3)

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## Technical Skills

- **Programming:** Python (NumPy, SciPy, Pandas, matplotlib, StatsModels, PySAL, Shapely, Fiona, GeoPandas, GDAL / OGR), R (ggplot2, knitr, caret, RWeka, tm, dplyr)
- **Software:** PostgreSQL / PostGIS, ArcGIS, QGIS, WinBUGS, Stata, QGIS
- **Statistical Methods:** linear and non-linear regression, Bayesian spatial models, time series, multi-level models, random forests, principal component analysis

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## Conference Presentations

- Andrew Gaidus, Sharon Lipperman-Kreda, Bridget Freisthler, Christopher Morrison, Paul J. Gruenewald, "Spatial Agglomerative Processes and the Economic Geography of Commercial Drug Markets", Association of American Geographers Annual Meeting, San Francisco, CA, March 29, 2016.