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, Applied 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 (BA), Cum Laude, 2011

Experience

Pacific Institute for Research and Evaluation, Oakland, CA   October 2013 – Present
Research Associate – Geospatial Analyst
- Serve as in-house data scientist and spatial data analyst at a national public health policy research institute where I conduct statistical and geospatial analysis for the organization's research
- Build statistical models that measure spatial and temporal patterns of problematic public health outcomes and quantify the effectiveness of policy in reducing these outcomes
- Use the stack of scientific and spatial Python libraries on a daily basis for data, statistical analysis, and visualization
- Lead training and provide technical assistance in spatial statistical methods, Python programming, and geospatial analysis for research partners
- Author methods and results sections for papers published in prominent peer-reviewed public health journals (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
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

Machine Learning Specialization – University of Washington, Coursera   March 2017 – Present
- Four-course specialization covering major areas of machine learning: prediction, classification, clustering, and information retrieval

Data Science Specialization –John's Hopkins University, Coursera   January 2015 – May 2016
- Ten-course specialization covering data science tools and concepts in R: statistical inference, regression modeling, machine learning, data product development

Spatial Data Science Bootcamp – University of California, Berkeley   May 2015
- Three-day intensive workshop covering spatial databases (PostgreSQL / PostGIS); open-source tools for spatial data analysis (Python, R); and web-mapping (Leaflet, D3)

Technical Skills

- **Programming:** Python (NumPy, SciPy, Pandas, matplotlib, Scikit-learn, StatsModels, PySAL, Shapely, Fiona, GeoPandas, GDAL / OGR); R (spatstat, maptools, spdep, ggplot2, knitr, caret, RWeka, tm, dplyr); SQL
- **Software:** PostgreSQL / PostGIS, ArcGIS, QGIS, WinBUGS, Stata
- **Statistical Methods:** generalized linear models, Bayesian spatial models, time-series, hierarchical models, classification models, principal component analysis