

A. John Woodill

(858) 210-9667 || johnwoodill@gmail.com

<http://www.johnwoodill.com> || <https://github.com/johnwoodill/>

Summary

Economist/Data Scientist with experience transforming, visualizing, and modeling data to communicate economic research results. Adaptive learner with strong analytical and technical abilities able to communicate results effectively. Willing to take on new situations and tasks independently or as a team member.

Technical Skills

- Statistical/Mathematical Methods:
Non/Semi/Parametric: (P): OLS, NL, GMM, (SP): GAM, PLM (NP): LCLS, LLLS, LQLS
Machine/Deep Learning: SVM, Classification, Decision Tree, Random Forest, Lasso/Ridge, KNN, PCA, Neural Networks, Recurrent Neural Networks
Bayesian: Linear, Hierarchical
Dynamic Programming: Forward/Backward Recursion, Jump Control
Stochastic: Markov, random-walk, weiner process
- Programming/Statistical Languages:
R (6yrs): tidyverse, data.table, felm, mlr, caret, randomforest, neuralnet, rmarkdown/bookdown
Python (2yrs): numpy, scipy, pandas, scikit-learn, statsmodels, TensorFlow, keras
Stata (2 yrs);**SQL** (1 yr);**SAS** (1 yr);**Matlab** (1 yr)
- Tools:
Docker, Shiny, Travis CI unit testing, Jupyter, MS Office, Google Drive/Doc/Sheets, LaTeX, Dropbox, git, Stackoverflow, AWS, Google Cloud

Experience

Independent Research/Data Science Projects Jan 2016 – Current

- Historical Fine-scale Weather: relative-anomaly spline interpolation technique - 460,000 grids from 1900-2015.
- Nonlinear Temperature Libraries: Developed R/Python libraries to calculate nonlinear temperature distributions.
- Fractional Multinomial Logit R Library: Collaboration through bug fixes and performance improvements.
- Data Science Docker: Custom docker image for research replication and remote parallel processing.

University of Hawaii at Manoa Honolulu, HI
Research Assistant Jan 2014 – Current

- Research, design, and implement statistical/mathematical models to estimate the impact of an invasive species to Hawaiian coffee, the coffee berry borer.
- Collaborate closely with economic research team, research scientists, coffee farmers, and stakeholders to estimate economic damage to coffee production and optimize decisions to reduce infestation levels.
- Develop tools for farmers to evaluate farm-level decisions to improve economic outcomes and decisions.
- Presented research results to local farmers at coffee conferences in Hawaii, UH CBB Coffee Summits, USDA policy makers, and the United Nations Food and Agricultural Organization (UNFAO).

SDSU Social Science Research Laboratory San Diego, CA
Research Assistant 2012

- Collect, transform, and interpret survey data to provide results for university administration projects.
- Collaborate with local communities and businesses to collect survey data and provide feedback on results.

Education

University of Hawaii at Manoa Honolulu, HI
Ph.D. Economics 2013 – Current

University of Hawaii at Manoa Honolulu, HI
M.A. Economics 2013 – 2015

San Diego State University San Diego, CA
B.A. Economics – Quantitative Analysis 2010 – 2013
Summa Cum Laude