CHRIS COMISKEY, PHD

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Profile

I am a statistician, data scientist, and R programmer with problem-solving, critical thinking, and communication skills. I carefully clarify and articulate project goals, process data with tidyverse packages, conduct appropriate statistical analysis, create visuals with ggplot2, write reports with R Markdown and LaTeX, and present results with Beamer slides.

Experience

Data Scientist, Open Data Group — 9/2017—Present

- Predict mechanical failure probabilities with survival analysis decision trees
- · Predict macroeconomic indicators with ARIMA time series modeling
- Clean, process, and wrangle messy big data with tidyverse packages
- Scrape web data with rvest, http, jsonlite, etc.
- Develop R packages for clients, using devtools, roxygen2
- Write R Markdown reports, give LaTeX Beamer presentations
- Develop R SDK components for use with ODG software REST API
- Conduct literature reviews of latest machine learning techniques
- Use Git, GitHub, Bash, MySQL, Python, HTML, Docker

Research, Oregon State University — 2013—2017

- Developed variable-resolution heat maps for spatial data
- Developed R package varyres for implementing variable-resolution heat maps
- Developed interactive heat map confidence intervals for spatial estimators
- Developed R package mapapp to create interactive heat map confidence intervals with RStudio's Shiny
- Modeled spatially correlated Bernoulli random variables with logistic regression and Gaussian Random Fields
- Estimated "Effective Sample Size" for hydrologic AR(1) time series

Teaching - CCD, 2010-2011 - OSU, 2012-2017

- Developmental Math Instructor at the Community College of Denver
- Graduate Teaching Assistant, OSU Statistics Department
- Consulting, OSU Student Consulting Services
- Course development, OSU Data Analytics M.S.

Education

PhD, Statistics - 2017

Oregon State University

M.S. Statistics - 2014

Oregon State University

B.S. Mathematics — 2017

Graduate Teaching Assistant, OSU Statistics Department

Skills

- Additional Statstical Analysis
 - Bayesian methodologies, including hierarchical models
 - Generalized linear models, including logistic regression
 - Design and analysis of experiments
 - Survival Analysis, including Cox Proportional-Hazard models
 - Time series, including ARIMA models
 - Machine learning, including classification with decision trees
 - Graphics, plots, and visualizations with ggplot2
- Additional R programming
 - stringr, readr for string manipulation
 - lubridate for working with dates
 - rstan for Bayesian modeling
 - fields for spatial statistics
 - spBayes for spatial Bayesian modeling
 - INLA for numerical approximations in Bayesian modeling
 - rpart, LTRCtrees for survival analysis trees

References

- Alix Gitelman
- Charlotte Wickham

Websites

- https://cwcomiskey.github.io/
- https://www.linkedin.com/in/cwcomiskey/