

GRAYSON WHITE

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3203 SE Woodstock Blvd, Portland, OR 97202

EDUCATION

Reed College, Portland, OR

August 2017 - Present

B.A. in Mathematics with a Concentration in Statistics

Division of Mathematical and Natural Sciences

RESEARCH

Characterization & Cost Modeling of Wastewater Facilities in Oregon

A 10 week Data Science for the Public Good research project. This project characterized small scale wastewater treatment plants in Oregon by creating a web-based application with data visualizations, maps, and educational materials regarding wastewater treatment technologies and transitioning from decentralized to centralized systems. We also used Bayesian techniques to create a cost model which mitigates the small sample size of wastewater treatment plants in Oregon.

TEACHING

Statistics Course Assistant

August 2020 - Present

Reed College

- Worked as the course assistant for a section of Math 141: Introduction to Probability and Statistics at Reed College. Attended lectures every week to help with interactive lecture activities. Held office hours to support students taking the course.

Econometrics Tutor

August 2020 - Present

Reed College

- Worked as a tutor available for individual tutoring sessions for Economics 311: Survey of Econometric Methods at Reed College. Provided students with the help needed to answer questions regarding econometric statistical techniques along with questions regarding using Stata.

Statistics Tutor

January 2020 - May 2020

Reed College

- Held weekly study sessions for Math 141: Introduction to Probability and Statistics at Reed College. Provided students with the help needed to answer questions regarding probability and statistics along with questions regarding programming in R.

PROFESSIONAL EXPERIENCE

Data Science for the Public Good Undergraduate Scholar

June 2020 - August 2020

Oregon State University

- Internship at Oregon State University. Developed forecasting tools for cost analysis of water and wastewater facilities in Oregon small towns and cities using Bayesian methods. Provided city planners with data-driven solutions such as an interactive dashboard for planning long-term development and investments.

SKILLS

Statistical Analysis	Multiple Regression. Bayesian analysis. Statistical tests such as t-tests, chi-squared tests, ANOVA, etc. Experience with statistical modeling and learning. Econometric analysis.
Data Visualization	Using tidyverse data visualization packages. Skills include interactive data visualizations and creating interactive applications with shiny .
Technologies	R, SQL, Git, L ^A T _E X, markdown, Stata.

TALKS & POSTER SESSIONS

Bayesian Cost Modeling of Wastewater Facilities in Oregon <i>Reed College Empirical Research Workshop Series</i>	August 2020 Type: Talk
Bayesian Cost Modeling of Wastewater Facilities in Oregon <i>Data Science for the Public Good Annual Symposium</i>	August 2020 Type: Poster Session

RELEVANT COURSEWORK

*Parentheses indicate courses in progress or to be taken before completion of degree.

Statistics:

Introduction to Probability and Statistics, Data Science, (Statistical Learning), Probability, Mathematical Statistics

Mathematics:

Calculus, Introduction to Analysis, Discrete Structures, Linear Algebra, Vector Calculus, Number Theory, Abstract Algebra, (Real Analysis)

Economics:

Introduction to Economic Theory, Econometrics, Environmental Economics & Policy, The Economics of Discrimination

Computer Science:

(Introduction to Computer Science)

PROJECTS

Baseball VisualizeR: A Baseball Data Visualization Project

A **shiny** application created as a final project for Math 241: Data Science. This project uses advanced data visualization and data acquisition techniques to allow for insightful visualizations to be seen and interacted with from the user end of the **shiny** application.

trimetStops

An R data package containing every TriMet bus stop and MAX line stop in the Portland Metro Area.

EXTRACURRICULAR

Member & Secretary of Reed Statistics and Data Science Club

Reed College Men's Basketball Team – Starting Guard