



Education

University of British Columbia

Master of Data Science

Vancouver, Canada

Grad. June 2019

University of Puerto Rico

Bachelor of Science in Biology

San Juan, Puerto Rico

Grad. June 2018

Coursework

Mathematics/Statistics

Statistical Inference and Computation

Regression Analysis

Bayesian Statistics and Inference

Spatial and Temporal Models

Experimentation and Causal Inference

Computer Science

Databases and Data Retrieval

Supervised Learning

Unsupervised Learning

Feature and Model Selection

Advanced Machine Learning

Awards

University of British Columbia

- Master of Data Science

International Scholarship

University of Puerto Rico

- PRLSAMP Undergraduate Research Fellow (2014- 2016)

Skills

R

tidyverse, purrr, zoo, lubridate, knitr, broom, quantreg, caret, testthat

Python

numpy, pandas, scikit-learn, pytest, tensorflow, matplotlib, pymc3

SQL

MS SQL Server, MySQL, CouchDB

Reporting

RMarkdown, Jupyter Notebooks, \LaTeX

Collaborative Development

Git, GitHub, Docker, Travis CI

Experience

University of British Columbia | Academic Assistant

January 2019 - April 2019 | Vancouver, Canada

- Developed educational material for the Introduction to Data Science course
- Developed assessment material for undergraduate students enrolled

Puerto Rico Institute of Statistics | Information System Consultant

March 2018 - August 2018 | San Juan, Puerto Rico

- Developed an open source application to visualize financial data from the Government of Puerto Rico.
- Completed the data services infrastructure of the Puerto Rico Violent Death Reporting System.

National Ecological Observatory Network | Eco-Informatics Intern

May 2016 - July 2016 | Boulder, Colorado

- Developed an open source application to visualize the spatial distribution and temporal patterns of animals in the continental United States.
- Researched the use of scientific visualization techniques to make data insights more accessible to non-scientific users.

Research Projects

Version Control Workflow Identification April 2019 - June 2019

University of British Columbia & RStudio

- Implemented clustering and dimensionality reduction algorithms to understand how people are currently using Git.
- Developed recommendations for an easier-to-use alternative to Git.

Deep Learning Species Classification July 2017 - August 2018

University of Puerto Rico - Computer Science

- Applied Neural Networks to classify animal callings in audio recordings.
- Devised data augmentation techniques for images of the callings to lower the validation error of classification algorithms.

Malaria Spatial Distribution Modelling July 2015 - May 2016

University of Puerto Rico - Biology

- Analyzed the spatial distribution of malaria in lizards in a secondary forest.
- Implemented regression methods to explain the distribution of the disease.

Projects

ColourblindR: An R Package for colourblind friendly themes

February 2019 - March 2019

- Brand new theme package implemented for ggplot2 to optimize graphs into a format interpretable by people with colourblindness.

Hurricane Maria Mortality Analysis October 2018

- Estimated mortality rates for urban and rural areas in Puerto Rico after Hurricane Maria using Bayesian methods and analyzed the spatial distribution of deaths