# RENAN XAVIER CORTES

#### **Data Scientist**

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github.com/renanxcortes



### **EXPERIENCE**

### Postdoctoral Scholar **Center for Geospatial Sciences**

University of California, Riverside (UCR)

- Development of an optimized Python Spatial Analysis Library (PySAL) module for aspatial and spatial segregation measures. It also presents novel features that performs inference for single value segregation and inference/ decomposition for comparative segregation.
- Geoprocessing, image processing, regression and machine learning framework using the American National Land Cover Dataset for population interpolation for harmonized space-time data/models.
- Parallelizing scripts using Jupyter Notebooks and submitting batch jobs in Python at the UCR high-performance cluster.
- Developing collaboratively a Web-Based data visualization tool of the Space-Time Analysis of Regional Systems.

### Researcher in Statistics

#### **Statistics and Economics Foundation**

**2010 - 2018** 

Porto Alegre, Rio Grande do Sul, Brazil

- Development of many Shiny applications using public crime data data, demographic data, socioeconomic data (idese), quarterly GDP data and economics data related to Business Cycle.
- Leader of department for more than four years.
- Data driven government consulting.
- Development of SQL queries to perform statistical analysis.
- Database manager.

#### **Professor**

#### **UniRitter Laureate International Universities**

**2018 - 2018** 

Porto Alegre, Rio Grande do Sul, Brazil

- Professor of Data Analysis with the R in the Data Science and Big Data postgraduation course.
- Data science workflow (importing data, cleaning data, wrangling, data exploring, modelling and visualising), fundamentals of the language, the tidyverse approach, best practices of the language and how to develop reports and web applications.
- Excellent feedback from students.

### MAIN PUBLICATIONS

- Cortes, R. X.; Rey, S.; Knaap, E., and Wolf, L.. An open-source framework for non-Spatial and Spatial segregation measures: the PySAL segregation module. Journal of Computation Social Science (Forthcoming)
- Colombo, J. A., Cortes, R. X., Cruz, F. I., and Paese, L. H. (2018). Building State-Level Business Cycle Tracer Tools: Evidence from a Large Emerging Economy. International Journal of Economics and Finance, 10(5), 14.
- Cortes, Renan Xavier, Adelar Fochezatto, and Paulo de Andrade Jacinto. "Crimes nos municípios do Rio Grande do Sul: análise a partir de um índice geral de criminalidade." Estudos Econômicos (São Paulo) 48.3 (2018): 451-487.
- Cortes, R. X., Martins, T. G., Prates, M. O., and Silva, B. A. (2017). Inference on dynamic models for non-Gaussian random fields using INLA.

### LIFE PHILOSOPHY

"Successful people care less about specific job they do and care a lot more about how they're approaching the job they have." - Cal Newport

### MOST PROUD OF



Friendship, Loyalty & Transparency To trust people and be trusted as a good teammate.



#### Persistence

Willingness to stay with my career in Data Science and always learn something new.

### SKILLS & STRENGTHS

Python SQL Shiny Jupyter

Communication Skills Collaborative Work

Hard-working

Motivator & Leader

## LANGUAGES

Portuguese **English Spanish** 



## **EDUCATION**

Ph.D. in Economics (with Honorable Mention earned)

**Pontifical Catholic University of Rio** Grande do Sul

**2015 - 2017** 

M.S. in Statistics

**Federal University of Minas Gerais** 

**2012 - 2014** 

B.S. in Statistics

Federal University of Rio Grande do Sul

**2006 - 2010** 

## **CERTIFICATIONS**

Over 40 DataCamp Courses Data Science Academy Courses

