

# RENAN XAVIER CORTES

## Data Scientist

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## EXPERIENCE

### Postdoctoral Scholar Center for Geospatial Sciences

📅 Sep 2018 – Ongoing    📍 University of California, Riverside (UCR)

- Development of an optimized Python Spatial Analysis Library (PySAL) module for nonspatial 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 space-time harmonized 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 post-graduation 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

- 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. *Brazilian Journal of Probability and Statistics*, 31(1), 1-23.
- de Oliveira, Lívio Luiz Soares, and Renan Xavier Cortes. "Faith and religious attendance in Brazil." *Rationality and Society* 28.3 (2016): 320-334.

## 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**  
To trust people and be trusted as a good teammate.

💓 **Persistence**  
I showed despite the hard moments and my willingness to stay with my career in Data Science

## SKILLS & STRENGTHS

R   Python   Shiny   Jupyter   SQL

Hard-working   Communication Skills  
Collaborative Work  
Motivator & Leader

## LANGUAGES

Portuguese   English   Spanish

## EDUCATION

Ph.D. in Economics  
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