Felipe Santos-Marquez

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EDUCATION

Nagoya University

M.S. in Development Economics

Nagoya, Aichi, Japan 2019–2021

– Thesis: "Achieving Peace and the SDGs in Colombia: Municipal Convergence, Crime, and the Role of Conditional Cash Transfers"

The National University of Colombia

B.S. in Physics, GPA: 4.0/5.0

Bogota, Colombia 2007–2012

EXPERIENCE

Nagoya University

Research Assistant at the QuaRCS lab

Nagoya, Aichi, Japan 04/2020- present

- Creation and Maintenance of databases
- Creating shapefiles and data-sets of income and well-being related variables across the world, and Sustainable Development Goals data for Bolivia

Nagoya University

Nagoya, Aichi, Japan

09/2019- present

- Academic Tutor at the Graduate School of International Development

 Tutoring of research, Master's and PhD students
 - Helping students to organize research data and to analyze it using a variety of econometric methods and software

National University of Colombia

Bogota, Colombia

Mathematics (Topology and Analysis) tutor at the School of Mathematics, Faculty of Science

01/2008- 07/2008

- Tutoring of physics undergraduate students
- Preparing and facilitating tutoring workshops and academic support sessions for small groups of students

TEACHING

• **Teaching Assistant** at Nagoya University GSID Open Webinar Series and Spanish 4 fall 2020

• English Teacher at Alive English School, Nagoya city, Japan Preschool, elementary and secondary classes

04/2017 - present

PUBLICATIONS

- [1] C. Mendez and **F. Santos-Marquez**, "Regional convergence and spatial dependence across subnational regions of asean: Evidence from satellite nighttime light data", Regional Science Policy & Practice, 2020.
- [2] **F. Santos-Marquez** and C. Mendez, "Regional convergence, spatial scale, and spatial dependence: Evidence from homicides and personal injuries in colombia 2010-2018", Regional Science Policy & Practice, 2020.

WORKING PAPERS

- 1. **F. Santos-Marquez**, A. Gunawan and C. Mendez "Regional income disparities, distributional convergence, and spatial effects: evidence from Indonesia." 2020
- 2. A. Dominguez, C. Mendez, and **F. Santos-Marquez** "Sectoral productivity convergence, input-output structure and network communities in Japan" 2020
- 3. **F. Santos-Marquez** "Spatial Beta-Convergence Forecasting Models: Evidence from Municipal Homicide Rates in Colombia" 2020

CONFERENCE PRESENTATIONS

• Applied Regional Science Conference Saga University, Saga, Japan November-2019

• Bolivian Conference on Development Economics La Paz, Bolivia (online conference)

August-2020

• 57th Conference of the Japan Society of Social Science on Latin America Japan (online conference)

November-2020

Extracurricular and Academic Activities

• Data@ANZ ANZ virtual experience Program

August-2020

Completed two practical task modules in

Exploratory Data Analysis

Predictive Analytics.

• DataCamp courses- completed over 10 online courses in:

2019 - 2020

Introduction to Machine Learning.

Multiple and Logistic Regressions in R.

Cluster Analysis in R

Supervised Learning in R: Regression

Supervised Learning in R: Classification

Unsupervised Learning in R

Spatial Analysis with sf and raster in R.

Visualizing Geospatial Data in R

Forecasting in R

Working with Web Data in R

SKILLS

- Software & code: GitHub, Geoda, Matlab and C++
- Statistical software: R, Python and Stata

STATISTICAL AND ECONOMETRIC METHODS ACTIVELY USED ON RESEARCH

• Exploratory Data Analysis R –Python –Geoda

• Exploratory Spatial Data Analysis R -Python -Geoda

• Linear, Logistic, Spatial and Spatially Weighted Regressions

• Spatial Visualizations & Geospatial Data Manipulation R - Python

• Synthetic Control Methods R

• Bayesian Model Averaging R

• Hierarchical, k-means, max-p and other Clustering Algorithms

R -Geoda

• Exponential Smoothing, ARIMA models and other Forecasting Methods R

• Time Series Analysis: Club Convergence Algorithms R- Stata

• Long-run Filtering and Spatial Filtering R

CODING TUTORIALS, CODE SAMPLES & DATASETS

• Local Moran's I and Spatial Scales (using R and tmap) rpubs.com/FelipeSantos/LISA_tmap_geoda

• Using the missForest Package (inputting NA data using random forests) rpubs.com/FelipeSantos/na missforest

• Global Economic Convergence Using the Tidyverse rstudio.cloud/project/650923

 $\bullet \ \ Socio-Economic \ convergence \ in \ Colombia \ Using \ the \ REAT \ package \\ \ rstudio.cloud/project/352478t$

• Slides and Presentations for conferences - created in R (xargian package) github.com/jfsantosm/BCDE2020-slides

• Private website (generated using Github, R and Netlify) github.com/jfsantosm/academic-felipe-august2020

felipe-santos.rbind.io/

• Data-set of municipal crime in Colombia and exploratory data Analysis in R github.com/jfsantosm/Regional-Crime-Data-Colombia

LANGUAGES

Spanish: Native speaker level
English: High proficiency level
Japanese: Intermediate level