

## Sergio Hernan Garrido Mejia

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### EDUCATION

*Machine Learning for mobility Ph.D.* January 2019 - current  
Danmarks Tekniske Universitet (DTU), Copenhagen, Denmark  
*Economics M.Sc.* January 2017 - July 2018  
Universidad de los Andes, Bogota, Colombia  
*Economics B.Sc. (Top 5% of class)* July 2012 - December 2016  
Universidad de los Andes, Bogota, Colombia  
*Exchange program* July 2014 - December 2014  
University of Bristol, Bristol, UK  
I took 7 subjects, 2 from the mathematics faculty and 5 from the economics faculty including Real Analysis with Professor Thomas Jordan  
*Exchange program* July 2015 - December 2015  
University of Melbourne, Melbourne, Australia  
Notable courses: Stochastic Modeling with Professor Nathan Ross and Real Estate Finance with Professor Gregory Schwann

### RELATED EXPERIENCE

*Research Assistant* August 2018 - December 2018  
Transport modeling (Danmarks Tekniske Universitet DTU)  
I work at the Machine Learning for Mobility group, we are currently working on the development of deep generative models to synthesize population.

- Python programming of advanced spatial and temporal Machine Learning methodologies with transportation system applications.

*Visiting Research Fellow* August 2017 - June 2018  
Department of economics (Hebrew University of Jerusalem)  
I worked as a research assistant under the supervision of Professor David Genesove. We work on industrial organization and urban economics problems.

- Creating spatial databases and writing programs in Python.
- Performing statistical analysis on the created databases.
- Notable audited the courses (MSc. level): Advanced applications of Machine Learning, Generalized Linear Models (GLM), Introduction to Artificial Intelligence and Urban Economics.

*Research Assistant* January 2017 - June 2017  
Centro de Estudios de Desarrollo (CEDE, Universidad de los Andes)  
CEDE is the leading think tank in Colombia for development economic research. Some of my duties were:

- Performing econometric analysis of databases using R and STATA.
- Designing experiments and surveys for future research.
- Reviewing relevant literature.

*Research Assistant* July 2016 - December 2016  
Banco de la Republica (Central Bank of Colombia)  
I worked at the department of payment systems and bank operations as a research assistant for Carlos Arango. Several documents were made for specialized Journals. Some of my duties were:

- Studying the Colombian payment systems.

- Performing econometric analysis of databases using R and STATA.
- Designing experiments for future research.
- Reviewing literature on monetary search-based models and empirical money demand documents.

*Research Assistant*

January 2015 - July 2015

Department of National Planning of Colombia (DNP)

I worked in a database anonymization project for the office of public policy evaluation and monitoring. I used the Statistical Disclosure Control methodologies (SDC). Some of my duties were:

- Reviewing technical statistical literature on database anonymization.
- Managing and processing databases.
- Performing econometric analysis of databases using R and STATA.

## **PUBLICATIONS** *Working Papers*

- Arango, C. Suarez, N. **Garrido, S.** (2017) "Como pagan los colombianos y por que?" Borradores de economia. Banco de la Republica. April 2017.
- Arango, C. A.; Suarez, Nicolas & **Garrido, Sergio.** (2016). Como pagan los colombianos y por que? Coyuntura Economica, 46(2), diciembre, pp. 141-167.

*Posters*

- **Garrido, S.** (2018) "Predicting crime in Bogota using Kernel Warping". Poster session presented at the Colombian conference of industrial and applied mathematics, Bogota, Colombia.

## **ACADEMIC EXPERIENCE**

*Tutorial Professor:*

Introductory Macroeconomics

January 2017 - June 2017

Intermediate Econometrics

January 2017 - June 2017

*Research groups:*

CESED (Security and Drugs Research Center)

January 2015 - July 2015

## **OTHER ACTIVITIES**

University Swimming team

January 2016 - June 2017

University Chess team

January 2013 - June 2017

Volunteer for "Fundacion con las manos" (taught maths to kids in one of the most vulnerable neighbors in Bogota)

January 2015 - June 2015

## **GRANTS AND SCHOLARSHIPS**

*Ministry of foreign affairs, Israel:*

July 2017 - July 2018

Scholarship from the ministry of foreign affairs of Israel to pursue a year of research at a University in Israel

## **TECHNICAL SKILLS**

Python (Sklearn, Tensorflow, Keras, (Geo)Pandas, PyMC3, numpy), R, STATA, SQL, MATLAB/Octave

## **LANGUAGES**

*Spanish* Native

*English* Fluent

*French* Conversational

*Hebrew* Conversational