

# Marcelo Antonio Ortiz Villavicencio

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Guayaquil, Ecuador

## EDUCATION

### Escuela Superior Politécnica del Litoral

Guayaquil, EC

*M.S. in Economics; GPA 9.11/10, Ranked 1st.*

*2019 - 2021*

**Thesis:** Beyond Average Effects: Distributional Price Effects of an Inclusionary Zoning Program in Auckland.

**Relevant Coursework:** Real Analysis (Math Camp), Microeconomic Theory, Macroeconomic Theory, Econometric Methods, Microeconometrics, Time Series Analysis, Experimental Economics, Natural Resource Economics, Growth & Development.

### Escuela Superior Politécnica del Litoral

Guayaquil, EC

*B.A. in Economics; GPA 8.98/10, Top-3*

*2014 - 2019*

**Capstone Project:** Shareholders and Financial Performance: An approach of Economic Networks.

**Relevant Coursework:** Calculus, Linear Algebra, Mathematical Economics, Microeconomics I, II, Game Theory, Industrial Organization, Macroeconomics I, II, Econometrics I, Microeconometrics, Time Series Analysis, Fundamentals of Python, Machine Learning & Data Mining

## RESEARCH EXPERIENCE

### Inter-American Development Bank

Washington D.C., USA

*Research Assistantship to Juan Pablo Chauvin, PhD*

*Aug 2021 - Current*

### Escuela Superior Politécnica del Litoral

Guayaquil, EC

*Research Assistant*

*Jan 2018 - Sept 2019*

- **CEO Gender and Firm Performance (With José Castillo):** I was in charge of the data collection, cleaning, estimations and writing some parts of the manuscript. This paper was published in Boletín de Política Económica of Economic Research Center at FCSH-ESPOL (2019). The goal of this project is to analyze whether the manager's gender has any influence on the financial performance of the Ecuadorian's firms using yearly data from the Superintendency of Companies, Securities and Insurance of Ecuador.
- **Business Dynamics of Companies in the Manufacturing Industrial Sector of Ecuador for the period 2003-2016 (With José Castillo and José Lima):** The research goal of this paper is to analyze what factors influence the survival of companies in Ecuador using a Proportional-Hazards Model with yearly data of Superintendency of Companies, Securities and Insurance of Ecuador from 2007 to 2017. I was in charge of the data collection, cleaning and writing some parts of the manuscript.

## TEACHING EXPERIENCE

### Escuela Superior Politécnica del Litoral

Guayaquil, EC

*Teaching Assistant*

*May 2017 - Sept 2019*

- **Econometrics II:** Undergraduate coursework in Potential Outcomes, Instrumental Variables, Regression Discontinuity Design, Panel Data and Difference-in-Difference.
- **Statistical Inference:** Undergraduate coursework in Continuous Distributions, Point Estimate, Confidence Interval, Hypothesis Testing, Maximum Likelihood Estimation, ANOVA, and Linear Regression

## WORK IN PROGRESS

- **Heterogenous Treatment Effects on Prices of a Voluntary Inclusionary Zoning Program ([abstract](#)):** with Fernandez, M.; and Sánchez G.
- **Mobility and Cooperation in Networked Public Goods Experiments ([abstract](#)):** with Castillo, José Gabriel.
- **Shareholding Networks in the Ecuadorian Financial Market ([abstract](#)):** with Estrada-Cedeño, P.

## FIELDS OF INTEREST

- **Primary:** Applied Econometrics, Machine Learning & Causal Inference
- **Secondary:** Applied Microeconomics, Economics of Networks, Empirical IO

## OTHER SELECTED RESEARCH WRITING

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- **Ceo Gender and Firm Performance:** with Castillo-Burbano, J. *Boletín de Política Económica*, (10), 24-32. Centro de Investigaciones Económicas, FCSH-ESPOL.
- **The return to classes in Covid's time: towards an educational pandemic?:** with Castillo, José Luis; Paladines, Ariell y Velasteguí, Luis. *Boletín de Política Económica*, (5), 31-37. Centro de Investigaciones Económicas, FCSH-ESPOL.

## COMPUTER SKILLS

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• **Languages:** R, Stata, Python, Matlab, SQL,  $\LaTeX$

**Technologies:** Git, Gephi, AWS, Azure Databricks, Google Cloud, Snowflake

## PROFESSIONAL EXPERIENCE

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### Rappi

Sr. Data Scientist

Guayaquil, EC

Aug 2021 - Current

- **Machine Learning:** Develop, build, test and maintain ML models for Fraud Prevention.
- **MLOps:** Own the full lifecycle of ML models from data-wrangling to getting it into production using microservices architecture.
- **Cloud Computing:** Experience using cloud infrastructure such as EC2, S3, Spark, Airflow and Snowflake

### Model

Data Scientist

Guayaquil, EC

Oct 2019 - Aug 2021

- **Times Series Analysis:** Forecasts with social media data (Twitter and Reddit). Production and model calibration for early warnings.
- **Impact Evaluation:** Application of linear models for impact evaluation and causal inference.
- **Social Network Analysis:** Identifying people influencers and community detection on social media through Graph Theory.
- **Machine Learning:** Supervised ML models for classification tasks and Natural Language Processing

## ACADEMIC AWARDS

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- 2021: Best student in his master's class.
- 2019: Masters Full Scholarship for graduate studies at ESPOL.
- 2018: Elected as a Student Representative to the Board of Directors of the School of Social Science and Humanities, ESPOL.
- 2018: Won a *Merit Scholarship* based on high-achieving and academic distinction (Undergraduate level) in the Department of Economics at ESPOL.
- 2014: *Best Graduating* student in high school (Valedictorian).
- 2011-2014: Winner of the *Medalla Escolar* from Benemerit Guayas Philanthropic Society (awarded to the best students of all the schools in the city).

## CONFERENCES

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- 2020: Paper *Analyzing Global and Local News Differences in Latin America* accepted in 12th International Conference on Social Informatics
- 2019: Paper *CEO Gender and Firm Performance* accepted in *IX Semana Internacional de Economía, Quito, Ecuador*.
- 2019: Paper *Understanding Latin American Citizens Concerns through Online Newspapers* accepted in Latin American WEB Congress, San Francisco, CA, USA.

## REFERENCES

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### Gonzalo Sánchez Lima, Ph.D.

Associate Professor and Director of Centro de Investigaciones Económicas - ESPOL, Guayaquil, Ecuador

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### David T. Jacho-Chavez, Ph.D.

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### Leonardo Sánchez Aragón, Ph.D.

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### Juan Pablo Chauvin, Ph.D.

Economist - Research Department of the Inter-American Development Bank, Washington D.C., USA

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### José Gabriel Castillo, Ph.D.

Vice Minister of Economy, Quito, Ecuador

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