Briam Eduardo GUERRERO BATISTA

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EDUCATION

- **Paris School of Economics (PSE) - Sorbonne School of Economics** *June 2025*
  Master of Research in Economics (M2 Recherche APE) Paris, France
- **Paris School of Economics (PSE) - Sorbonne School of Economics** *June 2024*
  Master of Science in Quantitative Economics (M1 APE) Paris, France
- **Santo Domingo Institute of Technology (INTEC)** *October 2023*
  Master of Science in Applied Mathematics Santo Domingo, DR
  ◦ GPA: 3.8/4.0
- **Santo Domingo Institute of Technology (INTEC)** *April 2019*
  Bachelor of Science in Economics (Summa Cum Laude) Santo Domingo, DR
  ◦ GPA: 3.9/4.0

EXPERIENCE

- **Central Bank of the Dominican Republic** *Sep. 2021 – Aug. 2023*
  Economist II Santo Domingo, DR
- **Central Bank of the Dominican Republic** *Feb. 2020 – Sep. 2021*
  Economist I Santo Domingo, DR
- **Business Action for Education (EDUCA)** *Jun. 2019 – Jan. 2020*
  Research and Development Specialist Santo Domingo, DR
- **Group for National Productivity and Competitiveness (GPCN)** *Jun. 2019 – Jan. 2020*
  Technical Coordinator - Research Assistant Santo Domingo, DR
- **Valumonics** *April 2019 – May 2020*
  Associate Santo Domingo, DR
- **Valumonics** *Sep. 2017 – March 2019*
  Financial Analyst Santo Domingo, DR

PUBLICATIONS
WP=WORKING PAPER, PP=PREPRINT, T=THESIS

[T.2] B. Guerrero (2023). **A Predictor-Corrector Interior Point Algorithm for the Optimization of the Government Budget Revenue**. Department of Basic and Environmental Sciences, Santo Domingo Institute of Technology (INTEC).

[PP.1] P. Acosta-Humánez, O. Bairan, J. Garcia, and B. Guerrero (2021). **Hamiltonian of the Black-Scholes-Merton equation**. Manuscript submitted for publication in *Revista Matematica: Teoria y Aplicaciones. Universidad de Costa Rica*.

[WP.1] B. Guerrero and M. Aquino (2020). **Vulnerabilities of the Pension and Retirement Program of the Dominican Education System**. In *Working Papers EDUCA*, #34. EDUCA. Feb. 2020, Santo Domingo, DR.

[T.1] B. Guerrero (2019). **Determinants of Economic Growth in the Dominican Republic: a DSGE approach**. Department of Economics and Business, Santo Domingo Institute of Technology (INTEC).

ACADEMIC EXPERIENCE

- **Santo Domingo Institute of Technology (INTEC)** *2017 - 2021*
  Teaching Assistant Santo Domingo, DR
  ◦ Courses: Microeconomics I (ECO303), Macroeconomics II (ECO306), Financial Economics (ECO327), Economic Development (ECO314), Econometrics I (ECO336) and Econometrics II (ECO337)
- **Santo Domingo Institute of Technology (INTEC)** *2017 - 2019*
  Substitute Professor Santo Domingo, DR
  ◦ Courses: Econometrics I, Econometrics II, International Economics I, Econometrics (MSc)
- **Santo Domingo Institute of Technology (INTEC)** *2019*
  Research Thesis Advisor Santo Domingo, DR
  ◦ N. M. Tejada (2019). "Economic Growth and Poverty Reduction in the Dominican Republic"

RESEARCH EXPERIENCE

- **Dominican Observatory of Public Policies, UASD** — *October 2021 - May 2022*
  Research Assistant — Santo Domingo, DR
  ◦ Sustainability of Dominican Pension System

- **International Monetary Fund (IMF) and Harvard's Growth Lab** — *May 2022 - June 2022*
  Research Assistant — Remote
  ◦ Assisted Gon Huertas on estimating coefficients from the Taylor Rules of LATAM panel

- **General Comptroller of the Dominican Republic** — *February 2022 - April 2022*
  Methodological Consultant — Santo Domingo, DR
  ◦ Developed a new methodology to get the present value of past contracts for an economic balance exercise.

- **National Treasury of the Dominican Republic** — *August 2021 - January 2022*
  Technical Consultant — Santo Domingo, DR
  ◦ Developed an econometric model for the forecast of tax revenues for a cash programming project guided by Mr. José Adrian Vargas Barrantes (former National Treasurer and Vice Minister of Finance of Costa Rica)

- **Business Action for Education (EDUCA)** — *June 2019 - January 2020*
  Research Assistant — Santo Domingo, DR
  ◦ Evaluation of the quality, efficiency, and equity of public expenditure on education in the Dominican Republic

- **Business Action for Education (EDUCA)** — *June 2019 - January 2020*
  Research Assistant — Santo Domingo, DR
  ◦ Sustainability of the Special Pension and Retirement Program for Teachers in the Dominican Republic

- **Group for National Productivity and Competitiveness (GPCN)** — *2020*
  Research Assistant — Santo Domingo, DR
  ◦ Unique RA of the book "Gazebo" by Dr. Xavier Sala-i-Martin and Dr. Peter Prazmowski.

LANGUAGES

Spanish: Native
English: Advanced
French: Basic

SKILLS

- **Data Analysis:** R, Stata, Excel, VBA, Matlab, PowerBI, Octave, Eviews
- **Web Technologies:** HTML, JavaScript
- **Database Systems:** SQL
- **Document Preparation:** LaTeX, Markdown, Juptyer
- **Data Science & Machine Learning:** Python, Matplotlib, TensorFlow, Scikit-learn
- **Mathematical Tools:** Mathematica, Matlab, Octave

CERTIFICATIONS

- **Financial Mathematics and Stochastic Calculus** — *2021*
  Center for Latin American Monetary Studies (CEMLA)
- **National Accounts Statistics** — *2021*
  Regional Center for Technical Assistance for Central America, Panama and DR (CAPTAC-DR) of the IMF
- **Big Data, Data Mining and Machine Learning** — *2021*
  Center for Latin American Monetary Studies (CEMLA)
- **Diplomas in Data Science and Intermediate Programming** — *2020*
  Technological Institute of the Americas (ITLA)
- **Macroeconometric Forecasting** — *2020*
  International Monetary Fund (IMF)
- **Macroeconomic Accounts and Analysis** — *2020*
  International Monetary Fund (IMF)
- **Diploma in Applied Econometrics with R** — *2019*
  Technological Institute of the Americas (ITLA)
- **Advanced and Intermediate English Courses** — *2017 – 2019*
  Dominican American Cultural Institute
- **Diploma in Applied Econometrics** — *2017*
  Foundation for the Advancement of Mathematics (FAMA)
- **Microeconomics** — *2019*
  MIT (edX)
- **Corporate Finance** — *2019*
  Columbia University (edX)
- **Intermediate and Advanced R Courses** — *2019*
  DataCamp

Workshops

- **Structural Changes and Their Implications for Macroeconomic Risks, Dynamics and Policies** *October 2023*
  Paris School of Economics (PSE)
- **Globalization, Shipping and Trade** *October 2023*
  Paris School of Economics (PSE)
- **Central Bank Macroeconomic Modeling** *November 2022*
  Central Bank of Colombia
- **Machine Learning and Causal Inference** *November 2022*
  Prof. Brigham Frandsen, Brigham Young University. Mixtape Sessions by Scott Cunningham
- **Instrumental Variables** *October 2022*
  Prof. Peter Hull, Brown University. Mixtape Sessions by Scott Cunningham

Honors and Awards

- **Scholarship for Master Studies in Economics** *2023*
  Elected by Authorities of the Central Bank of the Dominican Republic
- **Jury, NASA International Space Apps Challenge** *2022*
  Dominican Republic Competition
- **Mentor, NASA International Space Apps Challenge** *2020*
  Dominican Republic Competition
- **Winner, NASA International Space Apps Challenge** *2019*
  Dominican Republic Competition
- **National Scholarship for Postgraduate Studies in Science** *2020*
  Ministry of Higher Education, Science and Technology of Dominican Republic
- **Highest GPA of 8,000 Scholarship Recipients Nationwide** *2020*
  Ministry of Higher Education, Science and Technology of Dominican Republic
- **Highest GPA, Cohort of Applied Mathematics MSc** *2023*
  Santo Domingo Institute of Technology (INTEC)
- **Higher GPA, Cohort of Economics BSc** *2019*
  Santo Domingo Institute of Technology (INTEC)

Volunteer Experience

- **Coordinator, First Diploma in Real Analysis for Economists in the Dominican Republic** *November 2022*
  Laboratory of Applied Mathematics, Santo Domingo Institute of Technology (INTEC)
- **Member, PNC Dominican Republic ReLaCa Space** *October 2021 - Present*
  Latin American and Caribbean Space Network
- **Active Member, Rotaract INTEC University** *July 2022 - Present*
  Santo Domingo Institute of Technology (INTEC) Community Service
- **Member, Volunteer Program** *February 2020 - Present*
  Central Bank of the Dominican Republic
- **Director of Professional Development, Rotaract INTEC University** *July 2021 - June 2022*
  Santo Domingo Institute of Technology (INTEC) Community Service
- **Tutor on Topics of Differential Equations, Microeconomics, and Macroeconomics** *August 2021 - December 2021*
  Scholarship Holders of Central Bank of the Dominican Republic

References

- **Dr. Pavel Isa Contreras** *pavel.isa.contreras@gmail.com*
  Minister, Ministry of Economy of Dom. Rep. (MEPYD) +1 (809) 307-5848
- **Dr. Peter Prazmowski** *paprazmowski@gmail.com*
  Executive Director, National Competitiveness Council (CNC) +1 (829) 979-6550
- **Dr. Jaime Aristy Escuder** *jaimearisty@gmail.com*
  Research Professor, INTEC/PUCMM +1 (809) 223-4230
- **Dr. Rolando Guzmán** *rolando.guzman@intec.edu.do*
  Research Professor, INTEC +1 (829) 717-9290
- **Prof. Apolinar Veloz** *apolinar.veloz@gmail.com*
  Researcher, Dominican Observatory of Public Policies (ODPP), UASD +1 (703) 786-3616