

Jorge Juan Araujo



PERSONAL PROFILE

Final-year Mathematical Engineering student with a focus on finance and politics, with strong skills and experience in optimization, economics, finance, data analysis, and mathematical modeling. I am seeking a position as a financial analyst, with an emphasis on data analysis. I am characterized by my creativity, decision-making ability, determination, and ambition to achieve results.

CONTACT



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International Availability

WORK EXPERIENCE

MATHEMATICAL ENGINEER INTERN

BOUQUET COLLECTION

Miami, USA | Jul. 2023 - Jul. 2024

- Prediction Models
- Data Analysis
- Agent-Based and Discrete Mathematical Model
- Industrial and Process Simulation

SKILLS

- Data Analysis
- Optimization
- Mathematical and Statistical Modeling and Simulation
- Financial Analysis and Simulation
- Programming Languages: Python, MATLAB, SIMUL8, R, and Power BI
- Office Tools

APTITUDES

- Excellence
- Ambition
- Teamwork
- Decision-making
- Creativity
- Problem Solving

EDUCATION

MATHEMATICAL ENGINEERING

EAFIT UNIVERSITY

Medellín, Colombia | Jan. 2020 - Currently

BILINGUAL SECONDARY EDUCATION

GIMNORTE (REDCOL)

Valledupar, Colombia | Feb. 2014 - Nov 2019

LANGUAGES

- Spanish | Native
- English | Intermediate (B2) - APTIS Certification

RESEARCH PROJECTS

Mathematical Modeling for Malaria under Resistance and Population Movement

EAFIT University | March 2022 - May 2022

- Analyze the existence of endemic equilibrium, and develop a solution algorithm in Python for the optimal control problem.

Modeling of a Periodically Forced Pendulum with a Cubic Restoring Force

EAFIT University | July 2022 - November 2022

- Analyze and implement in MATLAB and SimuLink a dynamic model for the physical study of the behavior of a forced pendulum.

Stochastic Volatility and Kullback-Leibler: A Strategy for Portfolio Optimization.

EAFIT University | July 2022 - November 2022

- Propose a method for comparing volatility distributions using Kullback-Leibler divergence to contribute to the improvement of investment portfolio diversification.

Optimization of portfolios of listed companies on the BVC (Bogotá Stock Exchange).

EAFIT University | January 2022 - May 2022

- Design and develop a Beta regression model to predict the proportion of students who may drop out of a particular educational institution, using variables that impact school dropout rates.

Agent Based Model for Voters Political Positioning

EAFIT University | January 2022 - June 2023

- Developed an agent-based model to study voter ideology in Colombia, revealing trends toward ideological convergence. Insights support political strategy and policy development.

ACHIEVEMENTS

100% Scholarship, EAFIT University

January 2020

100% scholarship for the entire university degree for scoring in the 100th percentile on the ICFES exams (Nationwide exam for all high school graduates).

Best Student in the Graduating Class

November 2019

Award for achieving the highest ICFES score in the graduating class.

Winner of 5th Mathematical Rally

October 2017

Winner of the competition that brings together top students from the best schools in the city (Valledupar) to solve mathematical problems.

Finalist in the Mathematical Olympiads.

July 2018

Finalist in the national competition for top students solving mathematical problems.

Collaborator in the Political Parties and Elections Research Group (PAPEL)

Jan 2022 - July 2023

Collaborator in the publication of research from the research group.

Collaborator in the Financial Advisory Research Group.

Jul 2024 - Currently

Collaborator in the publication of research from the research group.