

# Juan Camilo Olaya Monsalve

## Economist and Data Scientist

Medellin, Metropolitan Area, Colombia • [juancamiloolaya83@gmail.com](mailto:juancamiloolaya83@gmail.com)

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### PROFILE

Economist well versed in mathematical modelling and data science dedicated to leveraging data-driven insights to drive real-world business problems using solid analytical skills with +4 years of experience developing systems for data-based decision-making consisting of querying, analysis, description, modelling, and visualisation of data and skilled at improving efficiency through task automation, system design and data modelling.

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### EDUCATION

#### EAFIT University

M.S., Applied Mathematics

Medellin, Graduate  
January 2024 – Present

#### EAFIT University

B.A., Economics  
Emphasis on Quantitative Economics.

Medellin, Undergraduate  
January 2017 – September 2021

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### EMPLOYMENT HISTORY

#### GRUPO ÉXITO

Analyst of Planogramming and Assortment Models.

Envigado, Colombia  
April 2021 – Present

- Applying techniques to business process automation (BPA) to increase team productivity is quantified by reducing execution time.
- Develop, implement, and maintain a mathematical model for optimising the use of display spaces in physical stores.
- Responsible for analysing large transactional datasets to extract meaningful patterns about customer behaviour and segmentation writing efficient queries.
- Collaborate with cross-functional teams to understand business requirements and translate them into data-driven solutions such as data insights via reports and dashboards, developing KPIs to enrich analysis for decision-making.
- Develop advanced algorithms for assessing product substitutability or complementary.
- Communicate findings effectively to both technical and non-technical stakeholders.
- Create and deploy numerous programs to enhance the organisation's product assortment.

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## INTERNSHIP

### GRUPO ÉXITO

Data Scientist

Envigado, Colombia  
June 2020 – January 2021

- Designed an anomaly detection system using Natural Language Processing (NLP) to identify double promotions on the company website, improving the offer of products exhibited virtually.
- Participated in evaluating of the impact of offers on sales within the small appliance category.

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## INTERESTS

Mathematical optimisation.

Statistical inference.

Dynamical systems.

Statistical learning theory.

Mathematical optimal control.

Machine Learning.

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## SOFT SKILLS

Adaptability.

Critical thinking and problem solving.

Analytical thinking.

Detail oriented.

Communication skills.

Leadership.

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## TECHNICAL SKILLS

**Software:** Version Control System | Excel.

**Programming Languages:** Python | R | SQL.

**Frameworks:** Streamlit | Shiny | Machine Learning (TensorFlow, Scikit-Learn, R Torch).

**Visualization:** Power BI | Tableau.

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## LANGUAGES

Spanish.....*Native speaker.*

English.....*Fluent.*

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## PROJECTS

### PROJECT PORTFOLIO

[Web](#)

A personal collection of completed and ongoing projects that showcase my skills, experience, and accomplishments.

### QUANTITATIVE FINANCE LAB

[GitHub](#)

Owner

2023

The Quantitative Finance Laboratory is a research and analysis facility studying financial markets and instruments. The team serves as a hub for quantitative research, risk assessment, and economic modelling using computational tools leveraging mathematical techniques to develop innovative strategies for investment, portfolio management, and risk mitigation.