

**Juan Camilo Olaya Monsalve**  
**Economist and Data Enthusiast**

Medellin, Colombia; [juancamiloolaya83@gmail.com](mailto:juancamiloolaya83@gmail.com); (+57) 305 3204958; [Website](#)

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## PROFILE

Economist with a strong background in **applied mathematics and data science**, specialising in **mathematical optimisation, machine learning, and strategic decision-making**. Experienced in building **optimisation models, predictive models, decision-support systems, and AI-driven analytics** to solve complex business challenges. Proficient in **Python, SQL, and cloud computing**, with hands-on experience in **data visualisation, algorithm and model deployment**. Passionate about data-driven solutions to optimise decision-making and improve efficiency with a results-oriented approach and the ability to communicate complex insights to technical and non-technical stakeholders.

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## EDUCATION

<b>EAFIT University</b> M.S., Applied Mathematics Emphasis on Mathematical Optimisation	Medellin, Graduate Present
<b>EAFIT University</b> B.A., Economist Emphasis on Quantitative Economics.	Medellin, Undergraduate 2021

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## WORK EXPERIENCE

<b>GRUPO ÉXITO</b> Analyst of Planogramming and Assortment Models.	Envigado, Colombia May 2021 – September 2024
<ul style="list-style-type: none"><li>• Design Business Process Automation (BPA) to reduce manual workload from 6-8 to 2 hours, depending on the automated process.</li><li>• Develop, implement, and maintain an optimisation model to maximise sales by redistributing shelf space, increasing by up to 20% in some stores.</li><li>• Build up algorithms to estimate substitute or complementary products, managing to calculate the substitute products of around 80% of the company's total portfolio.</li><li>• Responsible for analysing large data sets to extract patterns for customer segmentation given their buying behaviour.</li></ul>	

- Create and deploy an assortment recommendation engine for stores widely used to make assortment proposals, given the cost-effectiveness and regional effects.
- Develop a clustering app to group stores by similar features to share assortment among them, reducing the logistic costs.

## GRUPO ÉXITO

Internship as Data Scientist

Envigado, Colombia  
July 2020 – January 2021

- Design an anomaly detection system using Natural Language Processing (NLP) to identify duplicities in the company's web offers, avoiding reputational damage.
- Participation in evaluating the impact of multiple offers on sales in the small household appliances category to select the best-known offer.

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## TECHNICAL SKILLS

- **Programming:** Python, R, SQL.
- **Visualisation:** Power BI.
- **Optimisation & Mathematical Modelling:** SciPy, NumPy, Gurobi, OR-Tools.
- **Machine Learning & AI:** TensorFlow, Scikit-Learn, R Torch.
- **Frameworks:** Streamlit, Shiny.
- **Cloud & DevOps:** Azure, Git, Docker.

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## LANGUAGES

- **Spanish:** Native.
- **English:** Fluent.