# Santiago Buitrago Ramirez

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#### **EDUCATION**

#### **Bachelor of Science in Industrial Engineering**

Universidad del Norte, Barranquilla, Colombia

GPA: **4.14** | 5.00

Graduate: March 2024

Graduate: March 2025

Distinguished student

#### Master's in data Analytics

Universidad del Norte, Barranquilla, Colombia

GPA: **4.54** | 5.00

Distinguished student

## **SKILLS**

- Hard Skills: Python, RStudio, SQL, Spark, Google Cloud Platform (GCP), Power BI, Microsoft Office 365.
- Sof Skills: Analytical Thinking, Problem solving, Adaptability, Teamwork, Proactive.
- Languages: English (Fluent); Spanish (Native Speaker)

#### **WORK EXPERIENCE**

## Project Manager and Data Analyst, Hogar Salud, Barranquilla, Colombia

Agu 2024 - Present

- Automated critical business processes using Python, improving operational efficiency by implementing ETL workflows and data pipeline optimizations.
- Designed and implemented information systems using advanced data structuring techniques, enhancing data accessibility and reducing report generation time
- Developed and deployed predictive machine learning models to support data-driven decision-making across finance and operations teams
- Collaborated with cross-functional teams to translate business requirements into scalable technical solutions

#### Data Science Analyst, Consware SAS, Barranquilla, Colombia

Dec 2023 - Jun 2024

- Built comprehensive KPI reports and interactive dashboards using Power BI with advanced DAX functions, optimizing operational efficiency for multiple client.
- Designed strategies by assessing data quality to ensure compliance with business indicators.
- Created automated operational reporting systems leveraging Power BI, enhancing client insights.

# Data engineer Intern, Acesco, Barranquilla, Colombia

Jun 2023 – Dec 2023

- Developed and maintained performance reporting systems using Power BI, creating real-time dashboards that optimized manufacturing operational efficiency.
- Established resource consumption standards by leveraging machine learning techniques to drive cost-effective operations.
- Delivered comprehensive logistical support to the manufacturing area in MCM consultancy projects to enhance overall workflow.

#### **RELEVANT EXPERIENCE**

# Master's Thesis: Multi-product Demand Forecasting in Dynamic Environments Using Advanced Machine Learning Models, Universidad del Norte Aug 2023 – Dec 2024

Analyzed product demand by implementing comprehensive forecasting approaches including individual methods (exponential smoothing, moving averages), hierarchical clustering techniques, and intra-series graph-based modeling with StemGNN for correlation analysis. Detected demand shifts using Change Point Detection techniques to dynamically adjust models and maintained performance through incremental XGBoost learning to prevent accuracy degradation during distribution shifts.

# Undergraduate Thesis: Development of a Classification Model for Formal Employment Evaluating Concept Drift,

Universidad del Norte

Aug 2023 – Dec 2023

Analyzed pre- and post-pandemic migration trends from DANE GEIH survey data using Chi-Square statistical tests to identify significant distributional changes. Evaluated concept drift impact by testing model retraining strategies with and without feature engineering to determine predictive performance improvements.

#### **KEY PROJECTS**

#### Design of a GA-BNN model for news classification, Universidad del Norte

Aug 2023 – Dec 2023

Developed a Bayesian Neural Network for news classification using Kaggle labeled datasets and optimized the architecture through Genetic Algorithm implementation for hyperparameter tuning to enhance model performance.