# *Marlon Rodríguez Flor*

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## *Education*

**Master's Degree in Data Science** — *Universidad Autónoma de Madrid (UAM)*
*Postgraduate Degree* — *Sep 2023 - Jan 2025*
*Average Grade: 7.73/10*

**Computer Science Engineering** — *Universidad San Francisco de Quito (USFQ)*
*Undergraduate Degree* — *Aug 2017 - Jun 2021*
*GPA: 2.94/4*
*Bachelor's Thesis: Path Planning Optimization in SDN Using Machine Learning Techniques*

## *Experience*

**Banco Solidario S.A.** — *Ene, 2022 - Aug, 2023*
*Data Analytics Officer* — *Quito, Ecuador*

- Increased the balance in savings accounts by USD 200,000 by identifying over 38,000 potential clients who increased their balance by more than USD 260 through the implementation of an XGBoost model, with 7% of them achieving this increase.
- Lead and work closely with product owners to develop successful projects, communicating findings and results clearly and effectively to non-technical audiences.

**Banco Solidario S.A.** — *Jul, 2021 - Dec, 2021*
*Data Analytics Technician* — *Quito, Ecuador*

- Increased the number of downloads of Banco Solidario's mobile app by 30% and reduce the cost per download by 22% by implementing a Random Forest model to identify potential customers for digitalization, also improving customer segmentation.
- Enhanced customer experience and boost sales by developing an interactive dashboard to monitor the efficiency of time in sales and services for commercial advisors at Banco Solidario, enabling targeted actions at each branch.

## *Skills*

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|---|---|
| **Programming Languages** | Python, R, Java, SQL, Spark, C++, Dart, C#, CSS, HTML and LaTeX. |
| **Machine Learning** | Regression, Classification, Deep Neural Networks, Natural Language Processing (NLP), Convolutional Neural Networks, Reinforcement Learning, Clustering, Time Series and Recommendation Systems. |
| **Soft Skills** | Assertive communication, teamwork, problem solving, critical thinking, data storytelling, leadership, curiosity, adaptability, and self-taught. |

## *Languages*

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|---|---|
| **Spanish** | Native |
| **English** | IELTS 6.5, B2 |
| **German** | GOETHE, A2 |

## *Publications*

- **M. Rodríguez**, R. F. Moyano, N. Pérez, D. Riofrío and D. Benítez, "Path Planning Optimization in SDN Using Machine Learning Techniques," 2021 IEEE Fifth Ecuador Technical Chapters Meeting (ETCM), Cuenca, Ecuador, 2021, pp. 1-6, doi: 10.1109/ETCM53643.2021.9590749.

## *Certificates*

**6.419x: Data Analysis: Statistical Modeling and Computation in Applications** *Sep, 2022*
*MITx MicroMasters*

**18.6501x: Fundamentals of Statistics** *May, 2022*
*MITx MicroMasters*

**6.86x: Machine Learning with Python-From Linear Models to Deep Learning** *Nov, 2021*
*MITx MicroMasters*

**6.431x: Probability - The Science of Uncertainty and Data** *Sep, 2021*
*MITx MicroMasters*

## *Some Projects*

- **Multiple Object Tracking for Video Sequences:** This project addresses the task of multiple object tracking (MOT), specifically focusing on tracking people walking in video sequences. The base model for detection and tracking is enhanced using advanced techniques to improve performance. The dataset used is MOT16, which contains various scenarios for individual detection.
- **Gradient Boosting Implementation:** This project features an implementation of the Gradient Boosting algorithm, an ensemble method that combines multiple decision trees (stumps). It utilizes gradient descent optimization to minimize the loss function. The collective contributions of all weak models (stumps) result in a robust predictive model.
- **Analysis of Emotions in Classic Novels:** This project uses Natural Language Processing (NLP) to analyze emotions in literary texts from Project Gutenberg, aiming to identify and quantify emotions through advanced NLP methods like sentiment analysis and text information extraction. .

## *Some Relevant Courses Taken*

- **Master's Degree in Data Science:** Advanced Methods in Machine Learning, Advanced Methods in Statistics, Deep Learning for Biometric Information Processing, Deep Learning for Signal Processing Image and Video, Large-Scale Data Processing, Natural Language Processing (NLP), Reinforcement Learning, Temporal Information Processing, and Unstructured Information.
- **Computer Science Engineering:** Artificial Intelligence, Data Mining, Probability and Statistics, Linear Algebra, Calculus (I,II y III), Programming (I,II y III), Data Structures and Algorithms, Data Bases, Systems Design, Distributed Applications, Projects: Management and Analysis.