# Marco A. Morales, PhD

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## Data Science Executive
### Machine Learning – Behavioral Science – Statistics & Mathematics

Human Behavior Analysis

Critical Thinking

Forecasting & Planning

Data Analysis & Reporting

Risk Assessment

Assertive Negotiation Tactics

Transparent Communication

Creative Problem-Solving

Cross-functional Team Leadership

Extensive success in executive leadership, strategic planning, developing, and delivering inferential and predictive projects in the media space.

Build automated platforms, utilize data for a competitive advantage, and capture additional revenue streams from previously untapped resources.

Advanced experience and technical knowledge in machine learning and automation tools that streamline and simplify business processes.

Collaboratively build and lead talented teams of technical professionals by interactively training and mentoring.

Fluent in English and Spanish languages; proficient/intermediate French language skills. Extensive international experience, team leadership, and collaboration.

## PROFESSIONAL EXPERIENCE

**Warner Music Group**| New York, New York                                    2020 –2021
**VICE PRESIDENT – DATA SCIENCE AND PARTNER INSIGHTS**

Tasked with creating the Data Science function at Warner Music Group, including the selection of appropriate talent and tools, translating traditional research products into solutions, and identifying opportunities to apply advanced Data Science.

**NBCUniversal** | New York, New York                                           2015 – 2020
**SENIOR DIRECTOR – DATA SCIENCE,** 2019 – 2020

Strategically led data science efforts and initiatives that included the integration of linear and digital forecasting into a unified platform, an end-to-end open-source pipeline, and novel tools/methodologies to forecast TV viewership.

- Automated and simplified the monitoring of 5k+ forecasts currently in production. Proactively identified and reacted to early indicators of systemic changes in TV viewership.
- Boosted the effectiveness of inventory management after establishing novel tools for short-term viewership forecasting (pacing.) Continuously improved the productivity and output of new and existing tools. Currently in the process of filing a patent for this technology.
- Constructed an end-to-end open-source pipeline that powers a platform that automated and simplified viewership forecasting. Provided insights and decision-making tool to all of NBCUniversal's properties. Currently in the process of filing a patent for this technology.
- Built tools and solutions by partnering with different business units to effectively understand problems and apply appropriate corrective actions. Ensured the adoption of new solutions through effective training and on-boarding.
- Translated information and knowledge between technical and non-technical end-users. Distilled information into appropriate terminology and wording based on the audience.

**DIRECTOR – DATA SCIENCE,** 2017 – 2019

Collaboratively led a team of 25+ Data Scientists and Consultants in the effort to build and maintain an automated forecasting pipeline, methodologies to forecast viewership, and other new initiatives/projects surrounding data science.

- Accurately forecasted viewership rates for specific programming based on requirements from each business unit. Determined and linked viewership to proposed programming schedules for maximum efficiency.
- Constructed and implemented ETL algorithms and best practices that assisted in the automation of data feeds into the forecasting pipeline.

# Marco A. Morales Barba, PhD

* Introduced an all-new automated forecasting pipeline that slashed business processing times.

**ASSOCIATE DIRECTOR – MANAGEMENT SCIENCE & INTEGRATION,** 2015 – 2017

Designed, developed, and improved statistical methodologies, machine learning analyses, and the consolidation of various data sources to deliver insights on TV viewing behaviors.

* Streamlined the data collection, analysis, and reporting process for TV viewing behaviors. Facilitated compelling presentations to business units that drove critical decision-making processes.
* Validated and verified TV viewership through multiple data sources. Worked with engineering teams to ensure high quality data was utilized in the assembly of automated data pipelines.
* Linked multiple, divergent interests during the review of TV viewership data. Drew conclusions that led to rapid decision-making for pricing and programming.

**Office of the Mexican Presidency** | Mexico

**DIRECTOR GENERAL FOR POLITICAL ANALYSIS**

Championed all aspects of strategic communications, which included the interagency coordination for effective and unified communications strategy emanating from the Mexican Federal Government.

* Guided ad-hoc policy and communications task forces that incorporated various Federal Government Secretaries and Agencies. Efficiently navigated crisis and emergency situations.
* Liaised between the Office of the Presidency and the Security Cabinet to ensure interagency alignment with the overall communications strategy of the Federal Government.

**Permanent Mission of Mexico to the United Nations** | New York, New York

**COUNSELLOR – SPOKESMAN**

**Secretary of the Economy** | Mexico

**DIRECTOR FOR INTERNATIONAL INFORMATION**

**Chamber of Deputies** | Mexico

**SENIOR AIDE/ADVISOR TO THE PARTY LEADER (PAN)**

**Mexico City Legislative Assembly** | Mexico

**HEAD OF ADVISORS TO THE PARTY LEADER (DS)**

**Democracia Social Partido Politico Nacional** | Mexico

**UNDERSECRETARY FOR ELECTORAL ANALYSIS**

**Secretary of Foreign Relations** | Mexico

**JUNIOR POLICY ADVISOR, POLICY PLANNING STAFF**

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# TEACHING EXPERIENCE

**Columbia University** | New York, New York                    2016 – Present

**ADJUNCT ASSISTANT PROFESSOR OF BUSINESS,** March 2023 – present

Actively assembled course materials and other activities for teaching a graduate course on Digital Literacy for Decision Makers (B8125) for MBA students at Columbia Business School.

**ADJUNCT ASSISTANT PROFESSOR,** September 2016 – present

Actively assembled course materials and other activities for teaching graduate courses on Applied Data Science for Social Scientists (GR5069) and Quantitative Theory and Methodology for the Social Sciences (GR5010.)

- Empowered students with new skills and technical knowledge through interactive learning and coursework. Engaged learners with new technologies, tools, and methodologies.
- Leveraged knowledge in social sciences, technology, and other experiential areas to impart new knowledge to classes of masters and doctoral students seeking to join the data science space.
- Facilitated development of critical thinking about data in students. Elevated student potential with compelling discussions, in-class technical workshops and group exercises to advance proficiency in the data product cycle.

**VISITING ASSISTANT PROFESSOR,** September 2021 – June 2022

Taught graduate courses on Deep Learning (Projects in Advanced Machine Learning – GR5074), coding and data transformation in R (Modern Data Structures – GR5072), the practice of Data Science in an industry setting (Applied Data Science for Social Scientists – GR5069), research and inference methodology (Quantitative Theory and Methodology for the Social Sciences – GR5010) and advised student theses.

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# PROFESSIONAL SERVICE

American Association for Public Opinion Research (AAPOR)
COMMUNICATIONS COMMITTEE CHAIR – EXECUTIVE COUNCIL, 2021 – 2022
COMMUNICATIONS COMMITTEE ASSOCIATE CHAIR – EXECUTIVE COUNCIL, 2020 – 2021

Insight Data Science
TECHNICAL ADVISOR, 2017 – present

**ACADEMIC EXPERT REVIEWER** for professional and academic journals: *Public Opinion Quarterly, Political Behavior, Política y Gobierno, América Latina Hoy*

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# TECHNICAL PROFICIENCIES

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| Technical Training: | Machine Learning – shallow and deep learning, advanced econometrics (inferential & predictive), experimental methods, causal inference, survey methodology |
| Model Expertise: | supervised and unsupervised learning algorithms, linear models, logistic and other discrete choice regression, time-series cross-section, event-history, multilevel, spatial models (frequentist & Bayesian) |
| Other Tools: | git, SQL, Spark, Stan/JAGS, HTML (CSS), LaTeX |
| Programming Languages: | R, Python |

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# EDUCATION

New York University | New York, New York
**PhD – Political Science**