

Marco A. Morales Barba, PhD

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Data Science Executive

Machine Learning – Behavioral Science – Statistics & Mathematics

Human Behavior Analysis	Extensive success in executive leadership, strategic planning, developing, and delivering inferential and predictive projects in the media space.
Critical Thinking	
Forecasting & Planning	Build automated platforms, utilize data for a competitive advantage, and capture additional revenue streams from previously untapped resources.
Data Analysis & Reporting	
Risk Assessment	Advanced experience and technical knowledge in machine learning and automation tools that streamline and simplify business processes.
Assertive Negotiation Tactics	
Transparent Communication	Collaboratively build and lead talented teams of technical professionals by interactively training and mentoring.
Creative Problem-Solving	
Cross-functional Team Leadership	Fluent in English and Spanish languages; proficient/intermediate French language skills. Extensive international experience, team leadership, and collaboration.

PROFESSIONAL EXPERIENCE

Columbia University | New York, New York 2016 – Present
VISITING ASSISTANT PROFESSOR, 2021 - present

ADJUNCT ASSISTANT PROFESSOR, 2016 - 2021

Actively assembled course materials and other activities for a graduate course on Applied Data Science for Social Scientists (GR5069) and Quantitative Methodologies 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.

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

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.

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- 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.
- 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

Acted as a Senior Diplomat that oversaw all aspects of communications for Mexico and the United Nations Security Council. Assertively negotiated high-level issues on behalf of the Mexican Government.

- Inserted strategic communications for Mexico and utilized concise communications as an integral tool for multi-lateral negotiations processes.
- Facilitated the first Quinquennial review of the Peacebuilding Commission on behalf of the United Nations Security Council. Enhanced the results and mutual benefits post-review.

Secretary of the Economy | Mexico

DIRECTOR FOR INTERNATIONAL INFORMATION

Established strategic communications strategy and oversaw the implementation for multiple offices and agencies within the Secretary of the Economy.

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- Drafted, sanctioned, and continuously improved international and domestic communications strategies, enacted through press conferences, press releases, and public campaigns.
- Designed communications strategies and coordinated multiagency communications for international events that included the Mexico-Japan Free Trade Agreement, Fifth Ministerial Meeting of the WTO, NAFTA Commission Meetings, Free Trade Area of the Americas Meetings, Partnership for Prosperity Meetings, and many others.

Chamber of Deputies | Mexico

SENIOR AIDE/ADVISOR TO THE PARTY LEADER (PAN)

Actively provided strategic inputs, advice, and facilitated critical decision-making processes for the Minority Leader. Conducted research and drafted legislative strategy and political analysis briefs.

- Coordinated and updated the results of policy-related research and analytical briefs for the Minority Leader. Drove decision-making processes for new/existing policies.
- Streamlined and improved the consistency of political strategy papers to inform tactical decision-making by the Minority Leader.

Mexico City Legislative Assembly | Mexico

HEAD OF ADVISORS TO THE PARTY LEADER (DS)

Crafted legislation that directly aligned with social democratic principles, delivered strategic legislative guidance, and lead a team of Advisors tasked with supporting newly developed legislative strategies.

- Efficiently and effectively orchestrated research and legislation drafting activities across the team. Deployed experts to specific areas, which maximized the quality of results.
- Determined appropriate reactions to crisis and emergency situations. Quickly responded and adjusted strategies/plans based on need and demand.

Democracia Social Partido Politico Nacional | Mexico

UNDERSECRETARY FOR ELECTORAL ANALYSIS

Secretary of Foreign Relations | Mexico

JUNIOR POLICY ADVISOR, POLICY PLANNING STAFF

TECHNICAL PROFICIENCIES

Technical Training: Machine 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: SQL, Spark, Stan/JAGS, HTML (CSS), Latex

Programming Languages: R, Python

EDUCATION & AFFILIATION

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

Professional Affiliation & Activities

Technical Advisor – Insight Data Science