Maria Elena Villalobos Ponte

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EXPERIENCE

Data Science Manager | Investments Analytics, AIG • New York, NY • August 2019 - Present

- Lead 4 quantitative analysts making recommendations on strategic investment decisions to executive-level business stakeholders at the Chief Investments Office (CIOs) by providing insights derived from the modeling and visualization of portfolio allocation, metrics, constraints, and expected performance.
- Increase analysis relevance by modeling long-term asset class risk, return, and correlation forecasts meeting the business holdings and liabilities characteristics, consistent with macroeconomic expectations and time series data; for over 20 instrument types spanning 5 currencies, in private and public markets, in North America, EMEA, and Asia.
- Reduced the project full-cycle time by 67%, duplicated the business coverage, and increased qualitative client satisfaction by building pipelines automating dynamic data extraction, transformation, optimization execution, analytics calculation, and dashboard creation at scale using Python and SQL; coached the team on its usage and best practices.

Data Scientist | Investments AI, AIG • New York, NY • August 2017 - August 2019

- Implemented, tuned, and deployed a machine learning model for personalized financial news recommendations; improving over the rule-based baseline solution.
- Developed and launched an AI-driven product for real-time credit risk monitoring for the trading desk in collaboration with a cross-functional team of Data Scientists, Engineers, Product Managers, and Designers following best practices learned in an in-person AWS Data Lab Sprint with AWS Solutions Architects.
- Evaluated the business impact of using financial news analytics signals on investment decision-making by conducting statistical analyses of terabyte-sized datasets of structured and unstructured data and credit spreads time series.
- Collaborated with a cross-disciplinary team, as a technical lead advising on NLP and machine learning models, in the research and development of a goal-driven conversational AI for the warranty business presented at CES 2018.

Data Science Intern | Science, AIG • New York, NY • June 2016 - August 2016

- Implemented machine learning predictive models based on Gradient Boosting, hyper-parameter tuning, and loss function evaluation to estimate the probability of claims payment and the loss reserve amounts for indemnity, medical, and legal.
- Conducted an exploratory statistical analysis of a large volume dataset of general insurance claims including structured and unstructured data and augmented it by inferring categorical features missing values with text data.

Data Science Intern, NBCUniversal • New York, NY • February 2017 - May 2017

- Constructed and implemented ETL algorithms, pipelines, and best practices for the automation of ratings data processing at scale feeding into viewership forecasting models.

Consultant Manager, ICO Group • Caracas, Venezuela • August 2014 - May 2015

- Coached and mentored a team of 5 consultants implementing business analysis for process optimization and automation projects for multinational clients including PepsiCo and Clover using Salesforce.
- Directly managed the relationship with clients including requirements analysis for statements of work proposals, implementation, scope changes, training, and full-cycle project execution.

Product Manager; Software Developer, SGB • Caracas, Venezuela • August 2011 - August 2014

- Supported key decisions to improve products and services by developing the business intelligence (BI) infrastructure and database schema to collect and analyze mobile banking logs used by 3M+ users with over 10M+ monthly transactions.
- Led a cross-disciplinary team of Engineers and Designers ideating and building innovative products, services, and platforms in the financial services industry.

EDUCATION

MS, Data Science • Machine Learning, Deep Learning, Big Data, Statistical Methods, NLP
New York University, New York • May 2017

B.S., Computer Science • Artificial Intelligence, Database Architecture, Algorithm Design
Universidad Simon Bolivar (Caracas, Venezuela) • May 2011

TECHNICAL SKILLS

Proficient: Python scripting (pandas, NumPy, scikit-learn), SQL, Plotly/Dash, Tableau, bash, git, Apache Spark, Excel, Agile.

Familiar with: AWS (SageMaker, S3, EC2, DynamoDB), Google Cloud Platform (GCP), Databricks, R, MATLAB, spaCy, PyTorch, TensorFlow, seaborn, BeautifulSoup, Java.