# MARIAN (SHANTI) SANCHEZ BARBERO

Cambridge, MA

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## **EDUCATION**

# MASSACHUSETTS INSTITUTE OF TECHNOLOGY, SLOAN SCHOOL OF MANAGEMENT

Cambridge, MA

Candidate for Master of Business Analytics, Operations Research Center, August 2024

2023-Present

- Coursework: Machine Learning under Optimization Lens, Analytics Edge, Deep Learning, Marketing Analytics
- Machine Learning Project: Programmed a CNN model to detect malicious smart contracts (Python, TensorFlow,)
- Optimization Project: Designed an Amazon recommendation system based on product ratings and price (Gurobi, Python)
- Deep Learning Project: Authorship Prediction and Personalized Text Generation Using Chat Data (OpenAI)
- Activities: MITxHarvard Women in AI, Women in Management Club, Business Development Club

## MEXICO AUTONOMOUS INSTITUTE OF TECHNOLOGY

Mexico City

Master of Data Science

2022-2023

Coursework: Deep Learning, Bayesian Modeling, Numerical Methods, Data Visualization, Casual Inference

#### MEXICO AUTONOMOUS INSTITUTE OF TECHNOLOGY

Mexico City

Bachelor of Science in Business Engineering & Bachelor of Science in Industrial Engineering

2017-2022

- Honors: 90% scholarship award for academic excellence to cover joint degree
- Coursework: Logistics, Data Mining, Statistics & Probability, Finance, Econometrics, Business Strategy, Data Structures
- Thesis: Methodology for Sentiment Analysis in Twitter using Python, Applied to Electric Cars (Scikit-learn, NLP)
- Leadership: President of ITAM's Engineering Magazine publishing topics through the eyes of students from different majors

#### TECHNICAL SKILLS

Python, R, Julia/JuMP, SQL, QGIS, MATLAB, Tableau, Looker, Power BI, Azure Open AI, Autogen, Langchain

## **EXPERIENCE**

#### MIT SLOAN | DOOSAN BOBCAT CAPSTONE PROJECT

Cambridge, MA

Project: Build multi agents to extract web information and leverage it to explain Mkt Share (Autogen, OpenAI) Feb 2024-Present

## MIT SLOAN | OPERATIONS RESEARCH

Cambridge, MA

Research Assistant under Professor Georgia Perakis

Sep 2023-May 2024

Analyzed promotion strategies for BigC, the largest retailer in Thailand, in order to increase softeners profit (PvTorch)

#### MIT SLOAN | ASIAN WOMEN FOR HEALTH

Cambridge, MA

Non-profit organization dedicated to advancing Asian women's health

Sep 2023-Dec 2023

Analytics Lab Team Member: finding patterns in large health survey data

- Built a Decision Tree Classification Model to explore the intricate relationship between social determinants and health care insurance within Asian communities (Python, Tableau)
- Analyzed relationship between social determinants and stress level within cultural communities to tailor training programs
- Identified cohorts to target for education, awareness, and development of community resources on health insurance and communicated them to the Chief Development and Innovation Officer

DIDI Mexico City

Leading mobile transportation platform

2021-2023

**Operations Analyst** 

- Conducted a geofence strategy promotion based on density of demand increasing trip growth by ~3% (SQL, Python, QGIS)
- Increased ROI 10% by implementing a cohort strategy "do X get Y" to incentivize supply(Casual Inference, Bootstrapping)
- Delivered presentations and effectively communicated complex concepts to diverse audiences of 100 + executives

MORGAN STANLEY Mexico City 2020-2021

Equity Research Analyst - Intern

Created valuation and forecasting price models to build portfolio insights (Python)

Developed a forecasting model for cement prices and a descriptive analysis for potential bridges reconstruction in the US (R)

# ADDITIONAL INFORMATION

- Languages: Native Spanish, Intermediate Korean, Basic Japanese
- Interests: Chess, Learning New Languages, Jazz and Classical Music, Roller Skating and Reading