

## MARIAN (SHANTI) SANCHEZ BARBERO

Cambridge, MA

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[https://kimshan1.github.io/about\\_us.github.io/](https://kimshan1.github.io/about_us.github.io/)



### 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 (PyTorch)

#### 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 by 10% by implementing a cohort strategy "do X get Y" to incentivize supply (Casual Inference, Bootstrap)
- Delivered presentations and effectively communicated complex concepts to diverse audiences of 100 + executives

#### MORGAN STANLEY

Mexico City

*Equity Research Analyst - Intern*

2020-2021

- 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