Abraham Granados Carmona

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EDUCATION

The University of Chicago **Chicago, IL**
Master of Science in Financial Mathematics **Expected December 2025**
- Courses: Computing for Finance in Python, Option Pricing, Portfolio and Risk Management, Stochastic Processes
- Scholarships: Fulbright-García Robles by the United States and Mexican governments, Alpha Scholarship by the University of Chicago

Universidad Nacional Autónoma de México **CDMX, MX**
Bachelor of Actuarial Sciences (GPA: 3.8/4.0) **June 2020**
- Courses: Actuarial Risk Management, Risk Theory, Multivariate Analysis, Quantitative Methods in Finance, Financial Markets & Instrument Valuation, Stochastic Simulation, Time Series
- Awards: Graduated with honors

SKILLS

Computing: R, Python, VBA, SQL, Java, MS Office, SAS, Jupyter
Knowledge: Machine Learning, Time Series Analysis, Financial Markets, Stochastic Simulation, Statistical Modeling

EXPERIENCE

Santander Bank **CDMX, MX**
Structural Risk Manager **December 2023 - May 2024**
- Modeled the impact of interest rates on assets and liabilities. Researched new methodologies and presented results and improvements to senior leadership
- Forecasted interest rates using VAR, ARIMAX, GARCH, and ECM models

Coca - Cola FEMSA **CDMX, MX**
Demand Planning Coordinator **January 2023 - December 2023**
- Created long-term sales forecasts using ARIMA, multivariate regression, and machine learning techniques
- Quantified the impact on sales due to price changes, movements in inflation, government restrictions due to COVID-19, etc.
- Improved the execution time of many processes by automating them or optimizing their programming codes

Forecast Coordinator **June 2021 - January 2023**
- Created weekly sales forecasts for over 900 SKUs across 130 warehouses using Bayesian and ARIMA models and monitored the accuracy.
- Produced statistical analysis reports and presented findings to senior leadership

Universidad Nacional Autónoma de México **CDMX, MX**
Teacher Assistant **September 2020 - January 2022**
- Instructed 300+ university students classes on Probability I and Stochastic Processes I
- Graded homework and exams

KPMG **CDMX, MX**
Credit risk analyst **November 2020 - March 2021**
- Developed and implemented forecasting, data science, and machine learning models to quantify the credit risk of several companies

RESEARCH

Universidad Nacional Autónoma de México **CDMX, MX**
Bachelor's thesis: *Introducción al método Monte Carlo Hamiltoniano* **March 2020 – April 2021**
(Introduction to the Hamiltonian Monte Carlo method)
- Presented the Python codes and the theoretical support for the Hamiltonian Monte Carlo (HMC) algorithm
- Compared the performance of the HMC, RWMH, and t-Walk algorithms under various scenarios

ADDITIONAL INFORMATION

Languages: Spanish (Native)
COURSERA Courses: Financial Risk Management with R (Duke University), Financial Markets (Yale University), Introduction to Portfolio Construction and Analysis with Python (EDHEC Business School), Global Financial Markets and Instruments (Rice University), Specialization Applied Data Science with Python (University of Michigan)
Interest: Reading