

Antonio Ortiz

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EDUCATION

Massachusetts Institute of Technology

Major in Computer Science and Economics, Minor in Mathematics, GPA 4.9

Cambridge, MA

Sept. 2021 – May 2025

PROFESSIONAL EXPERIENCE

Algorithmic Trader

May 2024 – August 2024

TransMarket Group

Chicago, IL

- Worked in the US interest rates desk; improved backtesting accuracy and wrote operational scripts
- Analyzed CME tick data and built a statistical model to identify likelihood of higher latencies in orders
- Optimized order sizing in various interest rate markets

Quantitative Trader

May 2023 – August 2023

TransMarket Group

Aguadilla, PR

- Worked alongside a senior trader on the ERCOT power market in assessing trends, interpreting data, and providing tools to improve the desk
- Created VaR margin models for the PJM financial transmission rights (FTR) portfolio to be able to accurately predict margin requirements months in advance
- Identified opportunities in the market to capitalize on the differential between the price of electricity and the cost of the natural gas used to produce it, commonly referred to as the spark spread. Backtested these ideas and tested them live

Startup Founder

January 2024 – Present

LineUpSmart

Cambridge, MA

- Founded a company that aims to automatically tag American football clips via AI, which currently takes coaches over 10 hours per week
- Implemented many of the features in the app, such as player detection, line of scrimmage and down detection, and offensive formation detection
- Won a grant from the MIT Sandbox Startup program of \$10,000

MIT Researcher

December 2022 – December 2023

MIT Digital Currency Initiative (DCI)

Cambridge, MA

- Main economic researcher on the DCI currency efficiency project, which seeks to analyze the efficiency of both cryptocurrencies and traditional currencies on a unified scale
- Created various models for future hash rates on Bitcoin to estimate future energy consumption
- Created the initial framework for currency efficiency

RAIL Lab Researcher

May 2022 – August 2022

Witwatersand University

Johannesburg, SA

- Built a program that interacted with a robot so that it could play chess. It successfully did so by capturing the game state via a machine learning algorithm, then calculating the best move, and finally sending this command back to the robot
- Interfaced with ABB robots and ensured that correct calibration and code was implemented for future work in the lab

Economic Consultant

August 2020 – July 2021

Advantage Business Consulting

San Juan, PR

- Researched and wrote documents on topics ranging from public health policy to business strategy and valuation
- Projects included building models that tracked the change in the QALY (Quality-Adjusted Life-Year) in Puerto Rico over a decade and writing a research paper on the gasoline market in Puerto Rico

ADDITIONAL INFORMATION

Courses: Algorithms DSA, Measure Theory, Real Analysis, Probability Theory, Statistics

Awards: MIT Sandbox Startup Grant Recipient, 22nd at International Central American Chess Tournament 2018, 1st at Puerto Rico Chess Invitational Olympiad 2019

Skills: Python, Numpy/Pandas, C++, Econometrics, Probability, Statistics

Other Research/Projects: Research with Professor Jonathan Gruber to assess the impact of SBIR federal grants on biotechnology company success rates