

Matthew Casazza

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CAREER PROFILE

Computer Science and Econ graduate based in NYC with a strong proficiency in Python, SQL and Excel. Built technical foundations in algorithms, data engineering, and applied quantitative modeling through coursework and exploratory projects. Driven to work in Capital Markets to help build and validate the analytical infrastructure that powers investment decision-making across fixed income, public finance, and systematic trading.

EDUCATION

University of Colorado Boulder

Boulder, CO

B.A. in Computer Science, Minor in Economics. Major GPA: 3.5

Expected Graduation: Dec 2026

- **Relevant Coursework:** Artificial Intelligence, Data Science & Analytics, Stats and Probability, Algorithms, Software Development, Linear Algebra, Data Structures, Computer Architecture, Macroeconomics, Econometrics, Money And Banking systems.

TECHNICAL SKILLS

Languages: Python, SQL, Scala, JavaScript/TypeScript, C/C++, LaTeX

Financial: DCF Valuation, WACC/CAPM, Fixed Income Analytics, Fama-French Factors, Avellaneda-Stoikov, FinBERT NLP.

Data/Infra: Excel, Snowflake, dbt, Airflow, Spark, Kafka, BigQuery, PostgreSQL, pandas, NumPy, SciPy

ML/AI: TensorFlow, PyTorch, Reinforcement Learning, Keras, scikit-learn

Tools: Git, GCP, React, Next.js, Streamlit, Tableau, Microsoft 365.

PROJECTS

Automated DCF Valuation Engine

In Progress

Python, SEC EDGAR API, yfinance, pandas, openpyxl, BeautifulSoup

- Engineered an equity research automation tool ingesting historical financials via yfinance, parsing 10-K/10-Q filings from SEC EDGAR, and outputting formatted Excel valuation workbooks (Summary, Financials, Earnings, DCF, Sensitivity tabs)
- Implemented NLP tone analysis on MD&A and Risk Factors sections, extracting forward guidance to inform projection assumptions
- Built multi-scenario projection engine (Bull/Base/Bear) with WACC discounting and Gordon Growth terminal value; architected sensitivity matrices mapping Discount Rate vs. Terminal Growth Rate for fair value dispersion analysis

RL Bond Market-Making Simulation

Spring 2026

Python, TensorFlow, PyTorch, FinBERT, Avellaneda-Stoikov Framework

- Designed an RL agent for optimal bid-ask spread management under the Avellaneda-Stoikov stochastic control framework, benchmarking RL policies against finite-difference PDE solutions
- Extended with FinBERT sentiment-augmented volatility scaling from Feil & Nendel (2026) prediction markets research for real-time spread calibration
- Built interactive IG credit demos: RFQ blotter, CDX index hedging, inventory skew visualization, and P&L attribution dashboards

Portfolio Risk Analytics Dashboard

Summer 2026

Python, Streamlit, Fama-French Factor Models

- Built multi-asset risk platform computing Sharpe, Sortino, VaR, and CVaR across configurable allocations with Fama-French three-factor decomposition isolating systematic exposures from idiosyncratic alpha

EXPERIENCE & LEADERSHIP

Summer Doorman – Residential Property, NYC

- Assist in daily operations and resident relations at a high-profile property over the last 5 summers.

Philanthropy Chair – Fraternity Chapter

- Directed fundraising generating \$30,000+ in contributions across a 100+ member organization

Student Lead – CU Athletic Operations, University of Colorado Boulder

Nov 2024 – May 2026

- Received numerous accolades from supervisors for sustained work ethic, reliability, and leadership, consistently selected for elevated responsibilities and mentorship of incoming staff.