# Alec Guthrie

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## EDUCATION

**The University of Chicago**                                                                                               Chicago, IL
*Bachelor of Arts in Economics* & *Bachelor of Science in Data Science*  | GPA: 3.53/4.00                    Expected, June 2026

- **Financial Markets Program**: Chosen to be in a small student cohort in a three-year program to build quantitative financial acumen through coursework and workshops at the Chicago Booth School of Business
- **Relevant Coursework:** Introduction to Computer Science, Introduction to Data Science I and II, Economic Analysis, Financial Accounting, Game Theory, Linear Algebra, Multivariable Calculus, Psychology, Literature

## EXPERIENCE

**Chicago Booth School of Business - Financial AI Lab**                                                       Chicago, IL
*Machine Learning Research Intern (Prof. Bradford Levy)*                                            March 2024 - Present

- Professor Levy's research utilizes econometric and machine-learning methods to address the implications of AI on capital markets and corporate governance
- Cleaning 120 TB trading order book and analyzing dataset to identify patterns and prepare for model training
- Utilizing PyTorch library to build, train, and test deep neural networks including CNN and transformer
- Laying the foundation for further research on adversarial attacks against trading algorithms with implications for regulators (SEC and FINRA) and high-frequency trading firms

**Voltage Research Program - University of Chicago Becker Friedman Institute**                      Chicago, IL
*Advanced Research Assistant (Prof. John List)*                                           January 2023 – January 2024

- Professor List's research focuses on economic field experiments, investigating factors that influence decision-making, charitable giving, and market behaviors in real-world settings
- Collaborated with Professor List, undergraduates, and pre-doctoral students on econometric meta-analysis
- Wrote and analyzed code in Stata to replicate economic field experiments and tested the viability of a novel statistical correction technique used for multiple hypothesis testing

**Marine Capital Partners**                                                                              Los Angeles, CA
*Private Equity Intern*                                                                           July – September 2023

- Conducted due diligence for potential investments, including competitive and financial analysis of high-end home appliance industry
- Responsible for industry market research; made dozens of cold calls to various competitors and suppliers

## PROJECT EXPERIENCE

**UChicago Trading Competition**                                                                March 2024 – April 2024

- One of 38 teams chosen to participate in one of the nation's largest quantitative trading competitions
- Developed and backtested risk-parity portfolio allocation and momentum strategy algorithms

**UChicago Derivatives Group Quantitative Trading**                                        September 2023 – Present

- Analyzing financial time series data to predict asset returns, volatility, and interest rates
- Exploring the mathematical foundations of financial derivatives, including probability theory, asset pricing, and the Black-Scholes model

**UChicago Behavioral Economics Association**                                                 October 2022 – Present

- Organized production and contributed article on behavioral finance to annual behavioral economics journal
- Engage in networking events with behavioral science professionals in finance and technology industries

## SKILLS AND INTERESTS

**Computer:** Proficient in Python (NumPy, Pandas, PyTorch, scikit-learn), Microsoft Excel, Bloomberg Terminal, SQL.
**Languages:** French - writing, reading, and conversational proficiency
**Interests:** Competitive table tennis (UChicago Club Team), intramural tennis, trained classical and jazz pianist