

# Phillip Han

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## EDUCATION

### Vanderbilt University

Nashville, TN

*BA Mathematics*

*Expected Graduation: May 2026*

- Relevant Coursework: Statistics and Data Science, Number Theory, Linear Algebra, Graph Theory
- Clubs and Societies: Math Club (President), Quant Club (Vice President), Capture the Flag, Putnam, Poker Club

## EXPERIENCE

### Quantitative Researcher

May 2024 – Present

*Skynet Trading*

*Netherlands*

- Developing a maker algorithm on spot cryptocurrency markets for token market making(**ongoing/in testing**)
- Researching signals for existing market-making and maker-taker arbitrage algorithms in spot cryptocurrency markets
- Developed an internal orderbook and trade visualization tool for traders

### Quantitative Trading Intern

May – Aug 2023

*Skynet Trading*

*Netherlands*

- Optimizing inventory management of market-making algorithms across a hundred pairs handling over \$100M weekly volume
- Improving the pricing and risk management of designated market-making loan options with a focus on illiquid products and listings

### First Year Trading and Technology Program

Mar 2023

*Jane Street*

*New York City, NY*

- Selected as one of sixty freshmen to learn more about quantitative trading and technology models at Jane Street
- Built the top-scoring trading bot in the Electronic Trading Competition with my teammates
- Learned about arbitrage and market-making concepts in simulations with traders

### Undergraduate Research Assistant

Oct 2022 – May 2023

*Vanderbilt University Medical Center*

*Nashville, TN*

- Contributing to a proprietary package to estimate and correct effect sizes for neuro-imaging studies
- Applying parametric bootstrapping techniques to voxel data to remove effect size bias from studies
- Developing methods to determine significant correlations between different subjects' progression in neurodegenerative diseases and speech

## LEADERSHIP/AWARDS

### Math Competitions

- International Math Olympiad (Honorable Mention)
- New Zealand Math Olympiad (Gold)
- Australian Math Olympiad (Silver Medal)
- British Math Olympiad Round Two (21)

### Lecturer

Jan 2022

*New Zealand Math Olympiad Committee*

*Auckland, NZ*

- Lectured and graded selection at the Invitation-Only National Summer Training Camp

## PROJECTS

### Carry Portfolio | Python

Nov 2023 – Feb 2024

- Implemented a carry portfolio in the cryptocurrency markets based on currency future harvest indices
- Backtested using data analysis and statistics libraries including Pandas, NumPy, and SciPy
- Data collection using Rest APIs from various open source data agencies (CoinMarketCap, CoinGecko) and exchanges (Binance, Bybit)

## SKILLS

**Languages:** Python, Java, C++, R, MATLAB

**Libraries and Tools:** pandas, polars, NumPy, Matplotlib, Scipy, Jupyter Notebook, Microsoft Office, Linux