

# ADVIK CHAUDHARY

ADVIKCHAU@UCHICAGO.EDU; CHICAGO, IL, 60637; [ADVIKCHAU.COM](mailto:ADVIKCHAU@UCHICAGO.EDU)

## EDUCATION

### UNIVERSITY OF CHICAGO

*B.A. Economics, B.S. Computer Science. Davis UWC Scholar.*

Courses: Honors Microeconomics, Linear Algebra, Systems Programming III, Mechanics.

GPA: 3.85/4.00 Major GPA: 3.95/4.00

CHICAGO, IL

SEPT '23–DEC '26

### UNITED WORLD COLLEGE OF SOUTHEAST ASIA (UWCSEA)

*IB Diploma*

GPA: 4.25/4.30 (Points: 44/45)

SINGAPORE

AUG '19–AUG '23

## WORK & LEADERSHIP

### MILLENNIUM MANAGEMENT *FICC, Trading Intern*

- Developed strategies & backtesting module (Python) for PMs, created \$70k PnL during testing.
- Strategies included: IMM rolls seasonal study, UST auction dates vs. yields. Presented to PMs.
- Developed CTA-style systematic strategies (with variable positioning & drawdown management) and used genetic algorithms to routinely optimize parameters (in production).
- Created lightweight terminal-based app to display technical analysis and suggest trades.

SINGAPORE

AUG '24–OCT '24

### PASSION TO SERVE *Non-Profit, Founder*

- Founded non-profit organization to tackle inequality in education and essential items, assisting over 18,000 beneficiaries in Singapore (children; migrant and domestic workers).
- Built team of 300 volunteers to date, securing over \$160,000 in-kind funding. Partnerships with 8 NGOs, Singapore's Ministry of Manpower, and asset management firm.

SINGAPORE

MAY '20–PRESENT

### BLUECREST CAPITAL *Macro Strategy, Summer Analyst (Unpaid)*

- Built strategy to identify trades by analyzing FX Options Vol market data and deriving implied correlations across currencies (app GUI in JavaScript/HTML/CSS with Python backend).
- Leveraged Bloomberg API for real-time data, Z-scores to detect deviations in implied vs. realized correlation, with automated email alerts, heatmaps, and charts.
- Optimized algorithm to handle 600+ currency pair combinations (G10 & Asian currency pairs).

SINGAPORE

JUN '21–AUG '21

## ACADEMIC ACTIVITIES

### NSP EDUCATION, QUANT TRADING, EDGE ENTREPRENEURSHIP *Student Organizations*

*Neighborhood Schools Program:* non-profit education for K–12 children in Greater Hyde Park.

*Quant Trading:* covered options, futures, ARMA, non-linear vol models (ARCH/GARCH).

*Edge:* lectures from CTA, software, and biotech founders. Pitched a college advising startup.

UNIV. OF CHICAGO

OCT '23–PRESENT

### QUANTUM COMPUTING (NATIONAL UNIVERSITY OF SINGAPORE) *Researcher*

- Developed and compared classical and quantum models for mean-variance portfolio optimization using IBM Q quantum computers, documented in working paper, with Prof. Hua.
- Demonstrated the quantum model's superior performance, optimizing medium-sized stock portfolios (constant time vs. exponential), for scalable portfolio management.

SINGAPORE

OCT '22–JAN '23

### ELECTRON PARAMAGNETIC RESONANCE (EPR) SPECTROSCOPY *Researcher*

- Conducted EPR spectroscopy on DPPH and  $\text{MnCl}_2$  to analyze electron structures, including measurements of resonant magnetic fields, g-factors, and hyperfine constants, increasing understanding of paramagnetic samples and EPR applications in quantum computing.
- Identified six hyperfine peaks for  $\text{MnCl}_2$ , validating theoretical predictions & spin interactions.
- Worked with Prof. Petasis to publish findings in the Journal of Student Research (JSR).

SINGAPORE

SEP '22–OCT '22

## AWARDS

### GOLD AWARD RECIPIENT *National Youth Achievement Award (NYAA)*

Selected as one of 30 awardees in Singapore, between 16 and 30 years of age. Awarded by Mr Heng Swee Keat, Deputy Prime Minister of Singapore for non-profit work, among other activities.

SINGAPORE

JUL '22

**SKILLS:** Python, C, R, SQL, Bloomberg API, Qiskit (Quantum), Backtesting, Technical Analysis, Excel