

# Ameer Khan

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## EDUCATION

### The University of California, Los Angeles

*Bachelors of Science, Applied Mathematics with a Specialization in Computing*

Los Angeles, California

*September 2022 - June 2026*

**Activities:** Bruin Traders, Stats Club, Quantum Computing Student Association, Undergraduate Mathematics Student Association

**Relevant Coursework:** (Abstract) Linear Algebra, Differential Equations, Graph Theory, Real Analysis, Stochastic Processes, Mathematical Finance, Game Theory

## EXPERIENCE

### Allianz Investment Management

*Trading Analyst (Internship)*

Minneapolis, Minnesota

*June 2024 - August 2024*

- Worked on the US Index Options desk and developed a backtesting platform using a market distortion model to calculate Greeks and PnL attributions, used for researching hedging strategies.
- Built a pseudo-static trade solver to optimally hedge a portfolio of Cliquet Options with Vanilla Options and Delta-One products.
- Designed a framework for transaction cost analysis to investigate liquidity slippage and counterparty risk on OTC vs exchange-listed quotes.

### Richmond Investment Services

*Research Analyst (Internship)*

Milwaukee, Wisconsin

*June 2023 - September 2023*

- Developed tools for portfolio optimization using Markowitz theory and Value at Risk (VaR).
- Conducted market research in commodities, equities, fixed income, and international markets.
- Built a dashboard using Fred and Yahoo Finance APIs to visualize macroeconomic trends.

## PROJECTS

### On-Chain Settlement and Automated Market Making using Distributed Ledger Technology:

Built an Alternative Trading System (ATS) in Ethereum for equities with a novel market-making algorithm to study the improvements of T+0 settlement, market entropy, and liquidity provision while maintaining a novel degree of regulatory compliance. (March '22)

### Quantifying the Impact of Neurotransmitter Signaling and GSK3 $\beta$ in Bipolar Disorder:

Studied the different Neurotransmitter signaling systems and their relationship with the GSK3 $\beta$  enzyme in Bipolar Patients. (November '20)

## HONORS AND AWARDS

- SoCal College Poker Tournament Final Tablist (2024)
- AP Scholar With Distinction (2022)
- Badger State Science & Engineering Fair Finalist (2022)
- DECA State and International Qualifier (2022)

## VOLUNTEER EXPERIENCE

### Olga Radko Endowed Math Circle

*Organized lessons to help students prepare for the AMC 8.*

Los Angeles, California

*January 2024 - Present*

### Guitar Lessons

*Gave weekly guitar lessons to disadvantaged students in surrounding communities.*

Milwaukee, Wisconsin

*September 2019 - March 2020*

### Youth Soccer Coach

*Coached youth soccer to children aged 4-9 through the local Recreational Department.*

Mequon, Wisconsin

*June 2019 - August 2021*

## SKILLS AND INTERESTS

**Languages:** English (Native), Spanish (Fluent), Portuguese (Intermediate)

**Skills:** C++, Python, Java, L<sup>A</sup>T<sub>E</sub>X, Matlab, SQL, .Net

**Interests:** Poker, Soccer, Cello