Awonder Liang
awonder676@uchicago.edu
(608)515-9204
905 Shasta Dr., Madison WI 53704

EDUCATION

The University of Chicago   **Chicago, IL**
Economics, Computational and Applied Math   **Expected, June 2025**
GPA: 3.81/4.0 Relevant Classes: Intro CS I-II, Statistical Theory I-II, Honors Econ
Analysis I-II-III, Intro to Systems, Linear Algebra, Discrete Math, Econometrics,
Honors Algorithms, Analysis I-II-III, Markov Chains

PhD Classes: Honors Combinatorics, Deep Learning, Machine Learning
Financial Markets: Selective program to prepare students in careers in trading and
quant finance with weekly workshops
High School   **Madison, WI**
GPA: 4.0/4.0 (unweighted)   **2018-2021**

EXPERIENCE

FIDE International Chess Federation
International Chess Grandmaster   **2017 - Present**
- Earned the title of Grandmaster at 14 years 1 month
- 3x U.S. Junior Champion (2017-2019) | 5th, 3rd in 2020, 2022 US Championships |Silver Medalist (2021 U.S. Online Olympiad) | Rankings: #48 (World), #9 (U.S.)

Research
Booth   **2021 - Present**
  - Research with Booth Professor Nick Polson on stylometric analysis; used word2vec and ML to predict behaviors of different chess players
Robinson Lab   **Jun 2024 - Present**
  - Research with Professor Robinson on Korean chaebol groups 1970-1986; used sentence transformers to sort similar firms over time
Independent Research   **May 2024 - Present**
  - Independent research with Varun Krishnan (Lyft), Mark Heimann (Livermore Labs) on the chess Elo drift. Improved on baseline by 1.6 points (Brier score), submitted to SIGKDD conference

Personal Projects

Chess Pairing Predictor
  - Wrote a program in python to predict chess pairings in FIDE-rated Swiss events, processing w/ pandas and uses graph search to find optimal pairings
Bughouse Opening Tree
  - Scraped top level games from *Chess.com*'s server and created first open source opening tree (written in Python)
Random Walks on Elo

- Simulated random walks on the Elo system to find order statistics on the Elo system, used to identify misread accounts on online servers

BS Solver
- Trained a bot using RL techniques (Pytorch, RNN) to solve the card game, 'BS'

LEADERSHIP & ACTIVITIES

UChicago Chess Club

President   **Oct 2021 – Present**

1st board on the UChicago Chess Team to 1st place in $25,000 Collegiate Chess League, and many other team successes. Organize events, host training sessions and club meetings, coordinate logistics.

UChicago Trading Competition: 3rd Place   **April 2024**

Coded an algorithm in python based on pairs trading, market movements, ETF arbitrage. 3rd place out of 40+ teams.

UChicago FDIC Challenge   **Oct 2022 – Jan 2023**

Part of a 6-person team submitting a 6-page paper on the role of increasing inflation on bank risk.

Other Activities: Badminton, Bridge, Judo, Go, Shogi

SKILLS

Languages: Chinese

Computer: C, Python, R, Racket, Matlab