

# Perryn Chang

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## EDUCATION

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**Yale University**, New Haven, CT

Expected May 2026

*BS in Mathematics, Computer Science*

*GPA: 4.0/4.0*

*Relevant Coursework:* Algorithms, Data Structures, Probability Theory, Macro/Microeconomics, Group Theory

## EXPERIENCE

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**Yale University Department of Mathematics**

New Haven, CT

*SUMRY Research Experience for Undergraduates*

Jun 2024 – Jul 2024

- Research project studying the structural properties of well-edge-dominated graphs of  $\text{girth} \leq 4$ . Classified well-edge-dominated graphs with one triangle, bipartite graphs, and outerplanar graphs.
- Utilized NumPy to develop algorithm to construct well-edge-dominated graph and prove/disprove conjectures
- Project selected for Jane Street Math Day and Young Mathematician's Conference at OSU. Publication in progress

**Jane Street**

New York, NY

*Trading and Technology Program*

Mar 2024 – Apr 2024

- Designed, developed, and implemented algorithmic trading bots using Python to trade on mock exchanges against other algorithms, simulating trading securities like ETFs, ADRs, bonds, etc
- Brainstormed and implemented trading strategies to maximize PnL, finished in the top 20% among Jane Street teams
- Learned about market making, trading, and game theory using probability and math focused games

**Mentall**

Remote

*Business Development Intern*

Jan 2024 – Mar 2024

- Spearheaded research and development of algorithm designed to give users lifestyle suggestions aimed at reducing stress based on current user habits
- Gathered user feedback and conducted data analysis on the results using Pandas and NumPy, leading to 71% of users reporting a decrease in stress levels

## PROJECTS

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**ELO Rating Calculator and Tracker**

Dec 2023

- Implemented program and designed user-friendly UI using Flask to calculate and track chess ELO rating based on official US Chess Federation documentation, scalable for 10,000+ individuals
- Used data analysis to adapt current official algorithm for single game, non-tournament situations

## AWARDS

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**USA Math Olympiad (USAMO) & USA Jr. Math Olympiad (USAJMO) Qualifier**

**USA Computing Olympiad (USACO) Platinum Division**

**American Mathematics Competition 12 (AMC12) Perfect Score**

**USA Mathematics Talent Search (USAMTS) Silver Medalist**

**IMC Prosperity Trading Competition Rank 57 (out of 10k teams total)**

## SKILLS AND INTERESTS

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- *Skills:* Python, Pandas, NumPy, TensorFlow, C++, C, SQL, Excel, LaTeX, HTML/CSS, Flask
- *Languages:* English, Chinese
- *Interests:* Poker, Chess, Skiing, Blackjack