Alejandro X. Alonso

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EDUCATION

University of Chicago   Chicago, IL
Bachelor of Science in Computer Science & Bachelor of Arts in Astrophysics   June 2026
Cumulative GPA: 3.73/4.0, Major GPA: 3.9/4.0
Coursework: Computer Science I & II (DSA), Systems Programming, Statistical Methods & Applications, Data Science I
Honors: 35 ACT (36 STEM), 1st Place in a Citadel Securities Trading Challenge, NYSSB Recipient, Sociedad Honoraria Hispánica

Stuyvesant High School   New York, NY

EXPERIENCE

Jane Street Capital   New York, NY
Software Engineering Fellow   June 2023 – August 2023
- Engaged in a rigorous 8-week fellowship, becoming proficient in functional programming, product development, and web dev
- Tackled problems via OCaml implementation of tree/graph traversals, back-tracking algorithms, and data scraping/engineering
- Placed 1st in a Jane Street Electronic Trading Competition by developing a trading bot capable of implementing real-time arbitrage trading/converting strategies on bonds, ADRs, and ETFs. Averaged ~$25,000 in PnL per 5-minute trading window.

University of Chicago ITS | Network Architecture   Chicago, IL
Student Developer   February 2023 – June 2023
- Wrote Ansible & bash scripts to revamp a network with a perfSONAR (pS) framework on 50+ out-of-box & in-use Linux servers
- Built data processing tooling with Python and wrote docs on using pS to run per-node network tests to minimize user-end breaks

Paragon National Group   Chicago, IL
Quantitative Researcher   January 2023 – Present
- Improved portfolio variance tracking by ~20% by developing an optimized construction algorithm for a factor construction model
- Minimized divergence risk by ~27% in a pairs trading strategy by implementing NLP-based sentiment analysis on CQ news data

PERSONAL PROJECTS | https://github.com/aaworks

Options Pricing for European, American, and Asian Options | https://global-options-pricing.streamlit.app
- Implemented traditional Black Scholes, Binomial Tree, and Monte Carlo pricing methods in object-oriented fashion and built a deep q-network using an OpenAI gym and TF-Agents. Wrote a web app to price live and custom options using Polygon.io and YF.

Soccer Outcome Prediction Bot | https://sop-bot.streamlit.app/
- Designed a TensorFlow/Keras deep neural network, which reached 71.34% test accuracy with minimal overfitting (with seeded weights) displayed on a web app. Built data scraping/aggregation/normalization utils to parse and regularize live soccer data.

Web-Based Project Feedback Forum | https://github.com/aaworks/project-smithy
- Led a 4-student team to create a web app, database system, and admin dashboard using Python, Flask, SQLite, JS, Bootstrap, and bcrypt password hashing to facilitate project display & feedback. Made for use by a high school class with ~50 students per year.

LEADERSHIP & INVOLVEMENT

East Edge Securities | https://eastedgesecurities.com   New York, NY
Co-Founder, Managing Partner   November 2023 – Present
- Founded a 5-figure, value-oriented, risk-controlled investment firm employing extensive data analysis alongside two other students
- Developed a public-facing website and a secure investor portal using React, TypeScript, JS, Flask, Python, PostgreS, and Heroku
- Writing a detailed portfolio tracker, a REST API streamlining access to account data, and a signal identifying profitable pair trades

BlackGen Capital   New York, NY
Vice President of Recruitment & Talent Acquisition   September 2023 – Present
- Executed numerous recruiting strategies to attract, screen, recruit and select quality candidates for introductory & trading positions

University of Chicago Financial Markets Program   Chicago, IL
Quantitative Trading Analyst   June 2023 – Present
- One of 40 students selected for the Financial Markets cohort, a UChicago Booth program teaching applied quantitative trading

TECHNICAL SKILLS

- **Languages:** Python | OCaml | C | HTML/CSS/SASS | JavaScript | SQL | R | Git | Linux | Bash | Ansible | Rockstar
- **Technologies:** PyTorch | TensorFlow | Flask | Docker | Apache | React | Bonsai | SQLite | PostgreSQL | Vim | BB Terminal

AFFILIATIONS & INTERESTS

- **Affiliations:** SEO Career (EDGE Participant) | ColorStack (Member) | Sixth Street (Insights Fellow) | La Unidad Latina Foundation (Y Tu Tambien Mentor) | AI4ALL (Head of Northeastern Outreach) | Sigma Chi Fraternity (Event Chair)
- **Interests:** Soccer, Poker, Lifting, Golf, Table Tennis, Synth/Mixing Music, Philosophy, and Science Fiction Literature