Yifei (Fahy) Gao

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EDUCATION

New York University, Courant Institute of Mathematical Sciences New York, NY

Degree: M.S. in Mathematics 09/2021-10/2022

- *Coursework:* Scientific Computing, Stochastic Calculus, Advanced Topic in Mathematical tools (PhD), Risk and Portfolio Management, Numerical Analysis, Linear Algebra, Machine Learning for Finance, Complex Analysis II.
- *Awards & Experiences:* Grader of CSCI-UA.0101, Accelerated Bachelor-Master Scholarship, MCM Successful Participant, University Research Conference (Analysis of the Applications of Machine Learning and NLP in Chatbot).

New York University New York, NY

Degree: B.A. in Mathematics 01/2019-05/2021

- *Coursework:* Mathematical Statistics, Theory of Probability, Multivariable Analysis, Program and Data Science (Stern)
- *Awards & Experiences:* E-board at Fine Arts Society, Editor in Chief at NYU.LIVE Media Group, Quantitative Research assistant at NYU Langone, Schreyer Honors Scholar, Founders Day Award, THON volunteer, Alpha Kappa Lambda.

WORK HISTORY & RELEVANT ACTIVITIES

Wifhat New York, NY

Software Engineer and Product Manager 03/2024-Present

- Engineered data pipelines with Python and SQL to analyze millions of on-chain transactions, identifying trading patterns and labeling over 40,000 crypto wallets with behavioral insights.
- Automated scraping and classification of over 100,000 crypto projects using Playwright and Selenium in Python and TypeScript from sources like getMoni, RootData, and Arkham.
- Built and deployed cron jobs in TypeScript for synchronizing top holders and high-profit traders on Solana to Redis deployed on AWS and ClickHouse, enabling real-time analytics.
- Designed and refined AI model prompts using Gemini 2.5 pro and Open-ai o4-mini for token fundamentals and sentiment analysis, improving model content quality by 40%.
- Authored product specifications and coordinated execution across engineering and design teams to streamline development cycles and deliver user-centric solutions, past products: goatIndex.ai, moonke.biz and frontrun.pro.

One68 Global Capital under Millennium Management New York, NY

Quantitative Developer and Trading Assistant 10/2022-07/2023

- Created algorithm to auto-adjust risk estimate using Beta and SPY ETF in Python, improving the accuracy of upside risk and downside risk for merger arbitrage strategy.
- Automated the process of morning reconciliation on JPM Market & Enfusion & Safari, requesting borrows and EOD P&L attribution calculation, resulting in a 40% reduction in manual processing time.
- Deployed the rational database and created a trader-friendly full stack web application as a research data platform using HTML, Django, AWS RDS, and AWS EC2, reducing query latency by 80% and increasing the daily P&L by over 10%.
- Created an automated fast web-scraping algorithm to scrape news across publications using selenium, win32com, and pytesseract, overcoming 5 to 10 seconds delay for traders to receive news.

Shanghai Citang Technology Co., Ltd New York, NY

Software Engineer and Founder 01/2021-10/2022

- Developed a web-scraping algorithm and censorship detector, collecting 30k "healthy" Chinese slangs with definitions
- Designed an ETL pipeline to store 30k scraped Chinese slang words into a relational data base using SQLite and Python.
- Designed and developed a social media website and a slang dictionary using React, Django and Vercel with no cost.
- Led a cross-functional team of 2 developers and 2 designers to design web products using Figma and Adobe Illustrator, resulting in reducing cost by 30% and over 10k followers on social media platforms.

Courant Institute of Mathematical Sciences New York, NY

Researcher (Master thesis) https://github.com/fahygao/Latent-Senmatic-Analysis-NLP 01/2022-08/2022

- Demonstrated the superiority of Latent Semantic Analysis with Sparse PCA over traditional approaches through theoretical and empirical proofs, using K-means, SVM, and Naïve Bayes. Achieved faster fit and prediction times (10-20 times), and improved interpretability, with leading principal components explaining more variance.

SKILLS AND ATTRIBUTES

- **Skills: Python, SQL, Django, Bloomberg**, Enfusion, JPMorgan Market, AWS EC2, RDS, S3, Rest API, Excel, Git, ETL/ ELT, Option Pricing Model, React.
- **Interests:** Art History, Roller Skating, Bouldering, NLP, Guitar, A.I., Math, hiking, Texas Hold'em and more.