

# Neal Patel

QUANTITATIVE FINANCE · SOFTWARE ENGINEERING

☎ (+1) 847-274-1287 | ✉ NealPatel@nyu.edu | 🏠 NealPatel.dev | 📺 Desitrain22 | 🌐 NealPareshPatel

## Education

### New York University

August 2019 - May 2022

B.S IN COMPUTER SCIENCE | TANDON SCHOOL OF ENGINEERING, COURANT INSTITUTE OF MATHEMATICAL SCIENCES

MINORS: GAME ENGINEERING, FINANCIAL RISK ENGINEERING, SUSTAINABLE URBAN ENVIRONMENTS, APPLIED MATHEMATICS

#### ACRONYMS/KEY WORDS OF IMPORTANCE

- Python (Pandas, ML, Flask), C++, AWS (S3, Lambdas), Excel, Airflow, Options, Quantitative Indexing, Product Management, Sales Engineering

## Experience

### Clear Street Markets (Formerly Summit Securities Group)

New York, NY

SOFTWARE ENGINEER // QUANTITATIVE DEVELOPER

November 2022 - February 2023

- Created quantitative pipelines for packet-by-packet research tools on large scale exchange data for HFT on options, ETFs, equities, and futures
- Automated 50+ TB of daily data processing using Airflow, Podman, and Openshift for market making backtesting
- Optimized and configured continuous integration, deployment for production trading software and research data

### MerQube Inc.

New York, NY

FINANCIAL ENGINEER

June 2022 - September 2022

- Developed, tested, reconciled, and launched custom live indices for major investment banks and asset managers around the globe
- Optimized calculations and data queries in order to deliver index levels and weights to vendors including Bloomberg, Nasdaq, and Morningstar
- Interfaced directly with clients to produce real time and end of day indices for ETNs, ETFs, and FIAs
- Leveraged technologies including AWS, Airflow, Pandas, and proprietary APIs to produce automated index calculations and reports
- Contributed to internal libraries/APIs to facilitate mathematical computations, and maintain a distributed database of financial data

### Mercedes-Benz Group AG (Formerly Daimler-Benz U.S.A Group)

Brooklyn, NY (Remote: Portland, OR)

SOFTWARE ENGINEER, SCRUM MASTER [CONTRACT / CO-OP]

February 2022 - May 2022

- Partnered with Daimler through the NYU Vertically Integrated Project Commission to develop control systems for electric semi trucks
- Lead Sprints with a team of 6 student engineers using traditional Agile and Scrum Development practice
- Collaborate with Daimler staff on campus on deliverable product for the electric semi-truck control systems API and GUI

### Davinci Market Systems LLC

Key West, FL

CO-FOUNDER, QUANTITATIVE RESEARCHER

January 2021 - July 2021

- Co-Founded Davinci Market Systems, a financial service LLC servicing 3,100 active clients
- Build models and price forecasts on U.S equities, options, and ETFs using SKLearn and Discord's Python API
- Engineered web hooks to call out specific stocks and options using various indicators and APIs (.88 profitability rate)
- Customize and build retail options strategies for users to incorporate in personal portfolios and algorithmic trading libraries
- Organize seminars and 1-on-1 tutoring with clients on market concepts, quantitative theory and career development in trading and finance

### SEI Novus (Formerly Novus Partners)

New York, NY

SOFTWARE ENGINEERING INTERN

July 2020 - December 2020

- Automated weekly reports and customized portfolio indicators for hedge funds, investment managers, and other financial institutions.
- Engineered a flask based ETL Protocol for secure transfer of private client data between SFTPs and Amazon Simple Storage Service (S3)
- Tested and debugged releases and support tickets to the live Alpha platform with the Engineering and Data Analytics teams

## Extracurricular Activity

### NYU NCAA Fencing

New York, NY

ATHLETE

August 2019 - Present

- Fence in 7 yearly meets throughout the Division 1 season under coach Ben Bratton, OLY
- Practice 20 hours a week on and off campus at Fencer's Club Inc.
- Founded the 'Tandon Athletic Collective', building community amongst engineering athletes

### Math Finance Group | NYU Courant Institute of Math and Sciences

New York, NY

PRESIDENT, FORMER HEAD OF QUANTITATIVE TRADING

October 2020 - May 2022

- Recruit a selective team each year to participate in 5 yearly quantitative trading and engineering competitions a year
- Develop Trading Team Curriculum, covering content in machine learning, mathematical finance, and derivatives trading
- Delegate weekly open meetings and events, including networking sessions, guest speakers, and quantitative trading and research workshops

- **Spoken Languages:** Illinois State Seal of Bilingualism in Spanish || Native fluency in Gujarati
- **Other Experiences and Interests:** Stand-up Comedy, Society of Asian Scientists and Engineers, Scouting (Eagle Scout, NEIC), Sustainability
- **Hobbies:** Jazz music, Public Policy and Civics, Analog Photography, Diabolo Performance, Hiking, Canoeing, Camping