Neal **Patel**

QUANTITATIVE FINANCE · SOFTWARE DEVELOPMENT

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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
- Reduced daily jobs' cloud costs and overnight runtime by switching from a C#, serverless platform to pandas based airflow jobs

MerQube Inc.
New York, NY

FINANCIAL ENGINEER [SEASONAL]
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

GCOM Software
New York, NY

PRODUCT MANAGEMENT INTERN
June 2021 - August 2021

- Designed full architecture for the Vital Records Platform's transition to a SaaS model from previously delivered product for New York City
- Selected and implemented numerous public indicators and parameters for the Community Health Management platform with BigQuery, R
- Utilized Microsoft Visio, Axure, Adobe XD, and other platforms to design finalized architecture of Community Health Management Platform

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 (python) ETL platform for secure transfer of private client data between SFTPs and AWS S3
- Tested and debugged releases and support tickets to the live Alpha platform with the Engineering and Data Analytics teams

Other Projects

makeyouretf.com
New York, NY

A HEROKU APP USING PANDAS AND FLASKS WHERE YOU CAN MAKE YOUR OWN STOCK INDEX!

- A simple website where anyone can design and balance their own index (or portfolio) tracking equities from NYSE, NASDAQ, and AMEX
- Technologies: Flask, Javascript, Python, Pandas, CSS, Heroku, gunicorn
- Utilizing the SEC API, Yahoo Finance API, and a custom index methodology inspired by major U.S indices

Freelance Software Development/Quantitative Research
New York, NY

VARIOUS INSTITUTIONS
May 2021 - Present

- Technologies: Google Apps Scripts, Javascript, Flask, AWS Lambdas, AWS S3, Non-code softwares
- Delivered: Volunteer/Donor Database system, administrative portal, user registration portals, webscrapers
- Built: Quantitative models with pandas, web apps with Flask, databases contained in Google Sheets

NYU NCAA Fencing
New York, NY

ATHLETE
August 2019 - May 2022

- Fenced 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

Education

New York University
New York, NY

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
ACTIVITES: NCAA FENCING, MODEL UNITED NATIONS, MATH FINANCE GROUP, VIOLET DIABOLO

ACRONYMS/KEY WORDS OF IMPORTANCE

- Python (Pandas, ML, Flask), C++, AWS (S3, Lambdas), Excel, Airflow, Options, Quantitative Finance, Google Apps Script, Sales Engineering

- **Spoken Languages:** Illinois State Seal of Biliteracy in Spanish || Native proficiency in Gujarati || Limited Professional Hindi (Reading, Writing, Spoken)
- **Other Experiences and interests:** Stand-up Comedy, Public Speaking, Sustainability/Alternative Energy, Public Policy, Scouting
- **Hobbies:** Jazz, Analog Photography, Very Cheap Travel, Diabolo Performance, Hiking, Canoeing, Camping