# GENE PARK

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#### EDUCATION

New York University, Bachelor of Arts in Mathematics and Computer Science, Minor in Economics, New York, NY Anticipated December 2024

Relevant Coursework: Numerical Computing, Algorithms, Operating Systems, Computer Systems Organizations, Data Structures, Analysis, Abstract Algebra, Complex Analysis, Differential Geometry, Discrete Mathematics, Statistics, Linear Algebra, Calculus III, II, I, Web Design

## EXPERIENCE

#### (Current) Freelance Full Stack Developer - Healthcare Database Migration | NOW PAIN CLINIC | Current

- Clean, update, and migrate patient databases from outdated MS Access and Excel files to SQL utilizing SQL, Flask, MS Access, and Python, lowering search and update time by 99.6% and 93% respectively, on average
- ❖ Construct and stylize a user-friendly locally-hosted website for receptionists to update, add, and edit patient information and book appointments utilizing Flask, Python, CSS, HTML, and JS
- Connect front-end interface to back-end SQL utilizing Psycopg in Python

## Administrative Intern | Prime Academy, Tenafly, NJ

May 2023 ~ August 2023

- ❖ Uploaded and managed scheduling and financial information using Office
- Developed Python script to grade student's practice exams by importing CSV files from digitized problem sets then converting raw data into a data structure for comparison and manipulation using Python AI Library

## SAT Math and English Teacher | Prime Academy, Tenafly, NJ

June 2021 ~ Dec 2023

- Developed lesson plans and curriculum and taught multiple classes (individual, pairs, and groups of 4)
- Tracked progress of students using biweekly benchmarks and individual consultations
- ❖ Improved students' scores, on average, by 213 points by providing individualized supplemental lessons

## **PROJECTS**

#### **Cryptocurrency Trading Bot**

September 2023 ~ Current

Researched various trading algorithms for different cryptocurrencies, focusing on low-risk high volume trading patterns combining mean-inversion and pair trading strategies utilizing YahooFinance in PythonBuilt algorithms to quickly backtest high volumes of data quickly

Personal Website January 2024

- Built and styled a creative and organized website that showcased strengths as both a mathematician and computer scientist
- Utilized JavaScript to enhance user experience, and HTML, CSS (SCSS) to optimize website visuals

## Statistical Modeling of Bonds with Quantitative Analyst at Wells Fargo

September 2018 ~ June 2019

- Collaborated with a Quantitative Analyst to implement the Hull-White Model to test differing mean parameters on bond yield
- Calculated differing effects on increases to profit through running hundreds of thousands of regressions using a Monte Carlo simulation of the Hull-White Model

#### **SKILLS**

**Programming Languages:** Python, Java, SQL, C, C++, JS, HTML, CSS, R **Technical:** Microsoft Office Suite, Git, Flask, Angular, Node, PostgreSQL

Passed Actuarial Science Exams: Probability

Languages: Korean (Fluent)

#### LEADERSHIP

## Encounter Christian Fellowship, New York, NY

September 2022 ~ Current

President (2023-2024), Treasurer (2022-2023), Small Group Leader, Praise Team, Large Group Committee Member

- Led weekly discussion groups of 10 students to foster a connected college community; planned with co-leaders to communicate vision and evaluate group dynamic for improvement
- Documented financial spendings of the club and coordinated with NYU to provide funding
- Coordinated with staff and other leaders to provide the college students with a sense of community

#### VOLUNTEERISM