

# Daniel Shmir

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Brooklyn, NY | (646) 943-2434 | [dshmir04@gmail.com](mailto:dshmir04@gmail.com) | [linkedin.com/in/daniel-shmir](https://www.linkedin.com/in/daniel-shmir)  
<https://x-zhora-x.github.io/portfolio/>

## SUMMARY

Motivated and eager to learn with immense interest in Quantitative Development, Math, Software Building, Web Development, Data Analytics, Finance, AI, and Data Science.

- Quantitative Development
- Data Analytics & Visualization
- Project Management
- Full Stack Development
- Cloud & Database Management
- Web Development

## Experience:

### **The Rockefeller University - Software Developer**

May 2024 – Present

- Engineered a proprietary gene annotation tool using Python, PyQt5, and MySQL.
- Rebuilt the gene annotation application in C++ with Qt, achieving significant performance optimizations and improving scalability for broader use.
- Developed a custom program for processing and analyzing biological sequence data, streamlining contig assembly for genomic research.
- Visualized gene expression data using Seaborn and Matplotlib.
- Migrated databases from Cassandra to MySQL, restructuring to optimize storage and improving query performance.

### **Financial Quants and Engineers Club at Baruch College - Team Lead**

Jan 2023 – Present

- Led a team that developed a news-sentiment analysis-based factor trading machine learning model trained on a variety of news articles and market factors, focused on estimating weekly time series returns for financial indices.
- Implemented a rolling window backtest with hyperparameter optimization for the time series model, applying a train-test split approach.
- Created a website that allows rapid cointegration analysis and visualization of two tickers' stock data.

### **US Airforce Research Laboratory - Software Engineering Intern**

Jun 2023 – Aug 2023

- Designed and implemented flight dynamics and weapon mechanics to replicate real-world scenarios.
- Leveraged Unity's physics engine and 3D graphics capabilities to create visually compelling and physically accurate representations of aircraft, terrain, and structures.

### **Google - Software Development Mentorship Program**

Dec 2021 – Jun 2022

- Developed a real-time messaging and video calling website using WebRTC, JavaScript, HTML, CSS.

## Education:

- Baruch College, New York, NY, graduation 2026, Major: BS in Financial Mathematics, Minors: Physics, CS
- Stuyvesant High School, New York, NY - graduated June 2022

## Licenses and Certificates:

- Bloomberg Market Concepts - issued Aug 2024
- AWS Certified Developer Associate - issued May 2022
- Oracle Certified Associate, Java SE 8 Programmer - issued December 2022
- Google Data Analysis Certificate - issued July 2022
- IBM Machine Learning Certificate - issued January 2022

## Skills:

C++, C#, Java, Python, SQL, HTML, CSS, JavaScript, React Native, Pandas, Numpy, Keras, SciPy, Matplotlib, Seaborn, MS Office, Aws Development, Blender, Unity, Arduino