Rohan Malhotra

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Education

New York University, Courant Institute **New York, NY**
B.S. in Mathematics and Computer Science *Sep 2025 – May 2027*

- **Combined GPA:** 3.75/4.00
- **Awards:** AAAS National Scholar, Presidents List 2x, Deans List 2x
- **Coursework**: Data Structures and Algorithms, Operating Systems, Calculus 1-3, Linear Algebra, Statistics & Probability

Virginia Tech, College of Engineering **Blacksburg, VA**
B.S. in Computer Engineering *Transferred May 2025*

Technical Skills

- **Actuary CAS Tests:** Exam P (Sept 2025), Exam FM (Oct 2025)
- **Programming Languages:** Python, Java, SQL, C/C++, R, HTML/CSS, MATLAB, JavaScript, Swift
- **Frameworks/Libraries:** Pandas, NumPy, Matplotlib, Pytorch, Node.js/Next.js, React, Flask, Seaborn, Rest APIs, Websockets
- **Tools/Technologies:** Excel, Visual Basic, Git, GitHub, Linux, LaTeX
- **Interests:** Pickup Basketball, Golf, Weightlifting, Cooking, Lambda Chi Alpha, Robotics & Controls

Professional Experiences

Aress Software **New York, NY**
Machine Learning Intern *Jun 2025 – Aug 2025*

- Collaborated on LASSO and Ridge Regression prototypes in Python (PyTorch) to forecast IT–support incident resolution times. with pilot results indicating a 15% projected improvement in SLA compliance.
- Developed interactive Excel dashboards for real-time reporting of service metrics
- Model performance, enabling operations for teams to make data-driven prioritization decisions.

Y-Axis Overseas Careers **Chatham, NJ**
Data Engineering Intern *May 2024 – Aug 2024*

- Cleaned and normalized SQL data on client profiles and visa-application records to feed predictive models forecasting approval rates and processing timelines, reducing data-preparation time by 15%.
- Built Excel dashboards visualizing forecasted metrics and translated findings into clear, actionable recommendations for non-technical stakeholders.

Hume Center for National Security and Technology **Blacksburg, VA**
Aerospace Research Assistant *Oct 2024 – May 2025*

- Collaborated with a multidisciplinary team to research imaging & signal-processing techniques for coral reef health.
- Co-authored a NASA CubeSat Launch Initiative proposal, coordinating requirements with stakeholders and integrating autonomous imaging systems.

Leadership & Projects

PIVOT | vtpivot.org **Blacksburg, VA**
Co-President & Lead Software Engineer *Feb 2024 – Present*

- Lead a national physics organization, across multiple universities across the country.
- Manage and compete with my peers in competitions and projects related to physics, math, and computer science.
- Mentor members in advanced programming and quantitative methods, fostering collaboration across physics, finance, and CS.
- Oversee algorithm integration to apply physics-driven computational methods to engineering and financial challenges

Refrax | refrax.io **New York, NY**
Founder *Jan 2025 – Present*

- Built an interactive platform uniting computer science, finance, and physics to explore quantitative methods.
- Developed 3D visualizations of stock data with equation rendering and support for custom datasets using AI.
- Implemented animated modules to illustrate complex models and enhance engagement

Reddit Data in Quantitative Financial Models | hdl.handle.net/10919/124871 **New York, NY**
Co-author *Published: Aug 2025*

- Co-authored a published paper analyzing Reddit posts on r/wallstreetbets and correlating sentiment to price movements.
- Examined the relationship between online sentiment spikes and market volatility for predictive modeling use.
- Implemented natural language processing and regression models in Python to quantify sentiment impact on equity returns.

Green Sticker | greensticker.us **New York, NY**
Founder *Aug 2025 – Present*

- Engineered a Python + OpenCV system that tracks a user-defined green sticker to control the cursor.
- Provides an intuitive accessibility solution for hands-free computer interaction; specialized for students with disabilities