

# ALEX HSU

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## EDUCATION

### New York University

New York, NY

*B.A. in Computer Science*

May 2025

- **GPA:** 3.3/4.0 | **Courses:** Software Engineering, Artificial Intelligence, Operating Systems, Parallel Computing, Computer Systems Organization, Algorithms, Data Structures, Linear Algebra, Discrete Math, Statistics, Math for Econ I-II
- **Activities:** NYU Blockchain & Fintech, Tech@NYU, Chefs (Secretary), Aviation Club, Intramural Basketball (Captain)

## EXPERIENCE

### Cartage (YC S24)

San Francisco, CA

*Software Engineer*

July 2025 - Aug 2025

- Key contributor in architecting agentic AI systems to autonomously coordinate over \$150M in international freight logistics
- Implemented LangChain & Playwright to build a browser-based AI agent automating \$10k+ in daily shipment procurement
- Led development of an AI-agent calendar orchestration system, automating coordination for 30+ users and 150+ bookings

### MetLife

Cary, NC

*Software Engineer Intern*

Jun 2024 - Aug 2024

- Created a Python-based automation for configuration management, ensuring consistency for 100+ Linux virtual machines
- Minimized latency by 200ms per task execution and decreased security risks by implementing SSH key-based authentication
- Decreased CPU usage by over 20% and reduced idle times for 100+ machines by optimizing asynchronous tasks execution

### Ideas Lab

New York, NY

*Software Engineer Intern, Machine Learning*

May 2023 - Aug 2023

- Created a computer vision model using TensorFlow that supports core functionality for in-app golf ball trajectory analysis
- Augmented 1,000+ pieces of data using OpenCV to allow the model to optimally learn and detect ball movement patterns
- Trained neural networks to develop an object detection algorithm that achieves 85% accuracy and a .82 F1 score on average

### Hawkeye Investment Management

New York, NY

*Software Engineer Intern, Machine Learning*

Jan 2023 - May 2023

- Developed a K-nearest neighbors machine learning model in high dimensional space to identify optimal pairings for hedge
- Implemented 8 distinct parameters to predict the most similar ETF out of a pool of 400 to a given CEF with 95% accuracy
- Streamlined trading operations and cut down time-cost by 3+ hours daily through fully automating research & due diligence

### Constellation

New York, NY

*Data Science Intern*

Jun 2022 - Aug 2022

- Developed a Python script using Selenium and BeautifulSoup 4 packages to automate the extraction of 1M+ points of data
- Used MySQL to assemble a dataset with 1M+ data points for clients such as International Hilton Group and Lithia Motors
- Utilized Python, Pandas, and NumPy to clean data and develop natural language processing pipelines for sentiment analysis

## PROJECTS AND AWARDS

### NYU Dean's Undergraduate Research Fund Fellow

- Designed and optimized PostgreSQL database schemas to store and query over 20 million rows of time-series financial data
- Awarded research grant by NYU to analyze complex behavioral patterns of CEFs using time-series analysis and backtesting
- Automated and maintained data ingestion and transformation processes to streamline ETL pipelines for high-volume data

### Fruition (NYU Startup Accelerator Program)

- Utilized TypeScript, React.js, Node.js, PostgreSQL to engineer a role-based authentication system and responsive dashboard
- Containerized with Docker and integrated CI/CD pipelines to ensure consistent performance and automated deployment
- Working in a team of 3 to build a project management platform to support collaboration for 40+ research groups at NYU

### Haute AI (Convolutional Neural Networks)

- Utilized TensorFlow to engineer a Generative Adversarial Network from scratch that generates synthetic clothing sketches
- Architected the generator/discriminator components to create a system that continuously improves realism of new images

## SKILLS AND INTERESTS

**Programming Languages:** Python, TypeScript, JavaScript, SQL, C/C++, Java, HTML/CSS, x86 Assembly

**Frameworks/Libraries:** PostgreSQL, Node.js, Next.js, MongoDB, Express.js, React.js, TailwindCSS, Flask, Framer, TensorFlow, OpenCV, NumPy, Sk-learn, Selenium, BS4, Ansible, Docker, Git, Firebase, LangChain, Playwright, Redis, Nylas,

**Languages:** English (fluent), Japanese (conversational), French (conversational)

**Interests:** Basketball (New York Knicks), Tennis, Fashion (Design/Styling), Cooking, NYC Food/Restaurants