

# ALISSA HSU

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## EDUCATION

### New York University, Courant Institute of Mathematical Sciences

New York, NY

*Bachelor of Arts in Computer Science, Minor in Business Studies and Web Programming and Applications*

*Expected May 2026*

- **GPA:** 3.37/4.00 | **Courses:** Web Design and Computer Principles, Discrete Math, Statistics, Calculus, Macroeconomics, Financial Accounting, Computer Systems Organizations, Data Structures, Web Development, Drawing on the Web
- **Activities:** Tech@NYU, NetImpact (social entrepreneurship club), EMPIRE (entrepreneurship club), Marketing Society club

### Northern Valley Regional High School at Demarest

Demarest, NJ

*High School Diploma*

- **GPA:** 4.54 | **SAT:** 1520/1600, AP World History: 5, AP Psychology: 5, AP Microeconomics: 4
- **Activities:** Japan Club (President), KARE Volunteer Club (President), Multicultural Club (Vice President), Varsity Tennis (Captain), Varsity Winter track and field (Captain), Gifted and Talented club, National Honors Society, Art club

## RELEVANT EXPERIENCE

### Kaizen8

Closter, NJ

*Web Development Intern*

*May 2024 – present*

- Launched full-stack website showcasing the company's newest product utilizing third-party and Shopify APIs
- Collaborated with management and cross-functional development teams to bring the envisioned result to life
- Implemented systems optimizations to maximize efficiency and improve the customer experience to drive sales

### Ideas Lab

New York, NY

*Machine Learning Intern*

*May 2023 – Aug 2023*

- Assembled a computer vision model (YOLOv8) trained on 1,000+ hand drawn annotations to track real golf balls
- Generated 1000+ pieces of synthetic data with simulated trajectories and varied backgrounds to diversify training data
- Constructed convolutional neural networks with Pytorch to fine-tune parameters within each layer

### Kaizen8

Closter, NJ

*Product research and Distributor Relations Intern*

*May 2022 - Aug 2022*

- Compiled data on 100+ up-and-coming products to grow the company into a top 100 Amazon seller in the world
- Expanded the range and diversity of the distributor network to cater to a broader customer base with innovative goods
- Enhanced the exportation speed by restructuring the efficiency of product preparation methods

## PROJECTS

### Full Stack E-Commerce Site with Shopify

Closter, NJ

- Integrated Shopify API to expand on the platform's capabilities by streamlining payment and inventory automation processes
- Enhanced the visual appeal and efficiency of consumer experience with page customizations to boost sales conversion rate

### Computer Vision Golf Ball Tracking and Detection

New York, NY

- Produced an ML model capable of precise detection adept at handling varying trajectories and lighting conditions
- Examined the model's feature map to correct for false positives, lower detection regions, etc. to improve future iterations

### Generative Art Portfolio

New York, NY

- Experimented with mathematical calculations, randomness, and user interactivity to create visually compelling artwork
- Demonstrated proficiency in navigating Web APIs, raster and vector graphics, CSS animation, JavaScript libraries, etc.

## SKILLS AND INTERESTS

**Programming Languages:** Python, Java, C, HTML, CSS, JavaScript, SQL, PHP, Swift

**Frameworks/Libraries:** WordPress, PyTorch, Pandas, NumPy, Scikit-learn, Matplotlib, YOLOv8, Selenium, OpenCV

**Languages:** Japanese (proficient)

**Interests:** Animation, cooking new dishes, drawing, running