

# Eric Yang

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## EDUCATION

### Cornell University

Bachelor of Arts in Mathematics and Computer Science

Ithaca NY

Graduating May 2025

#### Coursework

- Object Oriented Programming, Intro to Machine Learning, Data Structures and Functional Programming, Algorithm Analysis, Game Development, Linear Algebra, Computer Graphics, Algebraic Groups, Computer Systems

## SPECIALIZED SKILLS

### Programming Languages and Skills

- Java, Python, pyTorch, SQL, NumPy, C#, oCaml, MatLab, Data Science, Linux, LibGDX

## WORK EXPERIENCE

### Stateable

Ithaca, NY

Product Development Intern

January 2025-Present

- Build, deploy, and maintain secure, scalable REST APIs using Node.js and AWS, as well as integrate APIs with AWS services like Lambda, DynamoDB, S3, and Step Functions for serverless architectures.
- Perform Extract, Transform, Load (ETL) tasks using Python, Jupyter Notebooks, and advanced tools.
- Design and manage database schemas for systems like MongoDB, PostgreSQL, or MySQL.

### Mayo Clinic

Rochester MN

Department of Radiology Social Media Intern

May 2024-August 2024

- Write and edit outreach posts for the Mayo Clinic Radiology Department, as well as analyze social media metrics.

### University of Minnesota Hormel Institute

Austin MN

Software Intern

June 2023-August 2023

- Programmed a Developer Operations workflow for pushing updates to a supercomputer network using Jenkins and Puppet.
- Learned to work with Linux UI and Rocky Linux shell, building custom docker containers for testing network updates.

## PROJECTS

### Trading Card Database

Rochester MN

Independent Project

May 2024-Present

- Created a SQL database of trading cards for the game *Magic: The Gathering*, featuring all 27,000+ cards.
- Created a tool where users can optimize their decks through a numpy powered hypergeometric calculator.

### Mayo Clinic Cancer Metastasis Detection Project

Mayo Clinic

Volunteer Researcher

July 2024-September 2024

- Developed tools to determine cancer types from cancer mutation data and patient records.
- Utilized Sklearn and numpy on patient data, classifying and processing medical data.

### Rab-Beat

Ithaca NY

Cornell University

February 2024-July 2024

- Developed the game *Rab-Beat* in a nine person team, featuring a game engine coded from the ground up in LibGDX.
- Coded object physics and integrated game assets into a level design GUI.
- Created an efficient content creation workflow to playtesting pipeline, allowing team members to produce game content and receive player feedback in less than a week, halving development time.
- Organized a strategy for informing stakeholders, writing weekly stakeholder reports and practicing Scrum agile development.

### Neural Networks

Ithaca NY

Cornell University

December 2023

- Constructed a neural network in Pytorch that could visually classify characters with 96.2% accuracy.
- Used ERM statistical methods to find optimal hyper parameters for the neural network.

### Kernelized SVM

Ithaca NY

Cornell University

October 2023

- Built a support vector machine using numpy and pytorch, classifying and sorting data sets using machine learning.
- Coded several kernel methods, applying mathematical techniques to implement RBF and polynomial kernels.

## ADDITIONAL EXPERIENCE

### Polymath Jr.

Online

Researcher

June-August 2023

- Conducted independent mathematics research in number theory under the guidance of professor Daniel Condon.
- Collaborated with peers and professors in writing a research paper on using De Bruijn sequences to color graphs.