

Jimmy Phan

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EDUCATION

Cornell University

Ithaca, NY

Bachelor of Science in Computer Science, Minor in Operations Research

Expected May 2026

GPA: 3.6

Relevant Coursework: **Applied Parallel Computers, Distributed Systems, Information Networks, Systems Programming, Object Oriented Programming and Data Structures, Analysis of Algorithms, Computer Systems, Functional Programming, Machine Learning**

EXPERIENCE

Teaching Assistant, Object-Oriented Programming and Data Structures

August 2023 – Present

Cornell University

Ithaca, NY

- Enhance students' understanding of fundamental object-oriented programming concepts and data structures by leading weekly discussion section of more than 40 students and answering over 10% of all questions posted to the course's public forum.
- Assist students in debugging and clarifying documentation for coding assignments of 500+ lines of code.

Software Engineering Extern

May 2023 – August 2023

Citadel

New York City, NY

- Developed proficiency in a comprehensive tech stack comprising Python, Flask, MongoDB, HTML, and CSS, through hands-on development of full-stack web applications.
- Engineered an intuitive portfolio management tool leveraging StockData API for real-time stock performance monitoring and integrated large language models for financial assistance.
- Analyzed stock market simulations to deepen understanding of market dynamics and financial concepts.

Project Lead

January 2023 – December 2023

Cornell Data Journal

Ithaca, NY

- Lead a team of five utilizing Git and agile software practices to analyze trends in educational performance and prices of financial instruments using data extracted via data scraping tools.
- Utilize pandas, NumPy, and scikit-learn to vectorize data and perform regression analysis, and visualize findings using Matplotlib.

PROJECTS

Tennis Analyzer | *Python, PyTorch, Pandas, Numpy*

June 2024 - Present

- Implementing an analyzer to accurately record ball speeds and distance covered by players in a tennis match.
- Utilizing the YOLOv8 detection model for player tracking and the YOLOv5 detection model for ball tracking.

Fault-Tolerant, Sharded Key/Value Store | *Golang*

June 2024 - July 2024

- Designed a key/value database that partitions keys over several shards, maximizing throughput of reads/writes.
- Utilized log replication to maintain data synchronization across replicas.

risk_of_ocaml | *OCaml, C*

September 2023 – December 2023

- Collaborated with a team of 4 to design a competitive, strategy-based multiplayer game using Git control flow and following agile software practices.
- Developed and integrated several UI components to react to changes over the course of a game.

Music-Sharing Platform | *React.js, Node.js, Firebase, TypeScript*

September 2023 – December 2023

- Created a music-sharing platform with a team of 3 using OAuth 2 and Firebase to store unique user data.
- Simplified querying for users' music taste and data from Spotify API, speeding up load times by 60%.

TECHNICAL SKILLS

Languages: Python, Java, C/C++, Golang, SQL (Postgres), JavaScript, TypeScript, OCaml, HTML/CSS

Tools & Technologies: Git, Linux, React (Vite, Next.js), Express.js, Node.js, Flask, MongoDB, Firebase, PyTorch