

# VIVIAN DAI

computer science student && programmer;

Ithaca, NY: 607-280-7928 | Toronto, ON: 416-620-0366

[vzd2@cornell.edu](mailto:vzd2@cornell.edu) | [linkedin.com/in/viviandai](https://www.linkedin.com/in/viviandai) | [viviandai.github.io](https://viviandai.github.io)

## EDUCATION

---

### Cornell University

#### BS in Computer Science

Ithaca, NY

Aug 2019 – May 2023

- GPA: 4.03, Dean's List
- Relevant Courses: Algorithms, Data Structures, Computer Vision, Functional Programming, Object-Oriented Programming, Artificial Intelligence, Systems Organization, Discrete Structures, Linear Algebra, Microeconomics
- Activities and Involvements: Cornell Electric Vehicles, Assoc. of CS Undergrads (Academic Officer), Hortus Forum

### Martingrove Collegiate Institute

#### High School

Toronto, ON

Sep 2015 – May 2019

- GPA: 97.4/100, Top of Class
- Activities: DECA Chapter President, Robotics Team Publicity Lead, Leadership Senior Counsellor
- Awards: National AP Scholar, DECA Provincial FCE Award, Waterloo Math Contests – Hypatia National Honor Roll, Euclid School Champion

## EXPERIENCE

---

### STEP Intern

#### Google

June 2021 – present

Remote

- Extend Google Hotel Center backend API to report additional room type data for ARI partners.

### Software Developer

#### Cornell Electric Vehicles

Oct 2019 – present

Ithaca, NY

- Develops new data metrics in the validation pipeline for residual neural network object-detection algorithms.
- Implements multiple residual neural network algorithms with PyTorch for an autonomous vehicle.
- Redesigned all team graphics and logos with a new, elevated team branding for recruitment and sponsorships.

### Computer Science Course Consultant

#### Cornell University

Sep. 2020 – present

Ithaca, NY

- Spring 2021: Holds consulting hours, grades assignments, and serves as a project manager for Cornell's Data Structures and Functional Programming course (CS 3110).
- Fall 2020: Held in-person discussion sections, graded assignments, and answered class questions weekly for Cornell's Discrete Mathematics course (CS 2800).

### Coding Instructor

#### MakerKids

July 2020 – Aug 2020

Toronto, ON

- Taught computer science and robotics fundamentals to kids ages 5 - 13 with Scratch, Python, and Arduino.

## PROJECTS

---

### Glarkson's Adventure | OCaml

Fall 2020

- Developed a platform game with functional programming techniques and a model-view-controller design pattern.
- Focused on the programming of sprite animation and movements, object rendering, level design, and GUI.
- Designed custom sprite images, backgrounds, and various graphics for the final rendering of the game.

### Markov Horoscopes | Python, NLP

July 2020 – August 2020

- Developed a horoscope text generation application using Python.
- Built a web-scraper using the BeautifulSoup framework for data collection of past newspaper horoscopes.
- Utilized a Markov chain model with memory of previous states to create realistic text generation.

## SKILLS

---

**Languages:** Python, Java, C++, OCaml, C, HTML/CSS

**Tools:** Git, VS Code, Coq, Eclipse, Microsoft Office, Adobe Photoshop