VIVIAN DAI

computer science student && programmer;

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EDUCATION

Cornell University Ithaca, NY
BS in Computer Science *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 Toronto, ON
High School *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 June 2021 - present
Google *Remote*

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

Software Developer Oct 2019 – present
Cornell Electric Vehicles *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 Sep. 2020 – present
Cornell University *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 July 2020 – Aug 2020
MakerKids *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