Qingyuan Wu

Second Year Engineering Student

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Experiences

IMPROVING A SUSTAINABLE FARMER'S GRAZING TECHNIQUES | Designer

Jan 2021 – Apr 2021

- Worked with a team of four Engineering students
- Designed a movable fence that allowed for easy fence relocation, a requirement for rotational grazing
- Built a functional, full-scale prototype
- Gained experience working on all aspects of a large-scale design project, including interacting with stakeholders, creating a Request for Proposal, and resolving team conflicts

U OF T ENGINEERING ACADEMY | Academic Mentor

May 2021 – Aug 2021

- Presented synchronous sessions to teach incoming engineering students Python and C programming
- Designed engaging and challenging problems to enhance student understanding
- Improved the courses by meeting with the coordinator and providing feedback

U OF T FORMULA RACING | Member of the Aero Subteam

Jan 2021 – Present

- Work on carbon layups
- Gained experience working with STAR-CCM+ (CFD), SolidWorks drawings (CAD), and FEA studies

Relevant Projects

FINDING SYNONYMS | Python

Nov 2020

- Program predicted synonyms of words based on their semantic similarity
- Similarity score computed using a large database of sentences, such as a book

SMARTLY CROPPING IMAGES | C

Apr 2021

- A program that performed seam-carving – an image resizing technique that removed one vertical "seam" of pixels at a time
- Used dynamic programming

CAR WIRING CHANGE | Circuitry

Jul 2021

- Contributed to a change to the vehicle's low voltage wiring system
- Introduced corner modules to reduce weight and allow cleaner wiring

LINEAR ALGEBRA CALCULATOR | HTML, CSS, JavaScript

Oct 2021 - Present

- Currently building a Chrome extension that performs some common linear algebra computations, including determinants, inverses, and Gaussian Elimination

Education

UNIVERSITY OF TORONTO

BASc in Engineering Science

Major: Machine Intelligence

Sept 2020 - May 2024

Cum. GPA: 3.95 / 4.00 | 91% average

Technical Skills

PROGRAMMING

Proficient:

Python • C • HTML • CSS • MATLAB

Familiar:

React • Bootstrap • JavaScript • ARM Assembly

TOOLS

Git • LaTeX • Markdown

CONCEPTS

- OOP: objects, inheritance, polymorphism
- Data Structures: linked lists, hash tables, graphs, AVL trees
- Algorithms: Dijkstra, Dynamic Programming, searching
- HTTP requests, APIs

Soft Skills

- Team Player
- Strong Work Ethic
- Time Management
- Critical Thinking

Courses

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- SQL Databases (next semester)
- Python, C, MATLAB
- Digital and Computer Systems
- Engineering Design

COURSERA

- Web Development