



Qingyuan Wu

Machine Intelligence Engineering Student, Second Year

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PROJECTS

SMARTLY CROPPING IMAGES | C

- Programmed an **image resizing tool** that performed seamcarving
- Removed one vertical “seam” of pixels at a time while **preserving important parts of the image**
- Used **dynamic programming** to compute the “minimal energy path” of pixels to be removed

NASA IMAGE GALLERY | JAVASCRIPT, HTML, CSS

- **Built and deployed** a **fully responsive** website **from scratch** that displayed NASA's Astronomy Picture of the Day images **in real time**
- Other features include a **Three.js-powered background** and **accessible design**

JOURNALLY - REMINDER TO JOURNAL | NODE.JS, MYSQL

- Worked as a **full stack developer** in a hackathon project that won the **best use of Twilio award**
- Sent registered users daily text reminders to write a short journal and stored responses in a **MySQL database**
- Retrieved messages and displayed on website

FINDING SYNONYMS | PYTHON

- Predicted synonyms of words based on their semantic similarity
- **Over 70% accurate** when tasked to guess the correct synonym given a choice of two words
- computed similarity score using a large database of sentences, such as a novel

AUTOMATED GRADE CHECKER | PYTHON, SELENIUM

- Used the **Selenium WebDriver** to log into a school website to check for newly released grades
- Gained experience with **Web scraping** and writing **automation scripts**

EXPERIENCES

U OF T CLOUDCLUB | AI ENGINEER, WEB DEVELOPER

Jan 2022 – present

- Added the **edit posts** functionality to the website's forums page
- Currently working on a title generation **Natural Language Processing** project using a **transformer neural network** and **PyTorch**

U OF T ENGINEERING ACADEMY | CODING INSTRUCTOR

May 2021 – Aug 2021

- Taught over **150 students Python** and **C** programming over the course of the work term
- Designed **over 20** engaging problems

EDUCATION

UNIVERSITY OF TORONTO

BASC IN ENGINEERING SCIENCE

MAJOR: MACHINE INTELLIGENCE

Sept 2020 - May 2024 (expected)

Cum. GPA: 3.95 / 4.00 | 91% average

TECHNICAL SKILLS

LANGUAGES

Python • JavaScript • HTML
CSS • SQL • C • Bash
Assembly • MATLAB

TOOLS/LIBRARIES

PyTorch • Node.js • Express.js
Git • NumPy • L^AT_EX

CONCEPTS

- Data structures & algorithms, including trees, Dijkstra's, and backtracking
- REST APIs
- Object Oriented Programming
- Automation testing
- QA principles
- Various Neural Networks
- Code documentation

COURSEWORK

- Data Structures & Algorithms (Python, C)
- Object Oriented Programming (Python)
- Relational Databases (PostgreSQL)
- Machine Learning (PyTorch)
- Statistics
- Linear Algebra (MATLAB)
- ODEs
- Multivariable Calculus
- Digital & Computer Systems
- Engineering Design (CAD)