Tao Shen

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Skills

Languages   Python, JavaScript, SQL, C, C#, C++, Java, HTML, CSS
Technologies   React, Node, Express, MongoDB, Git, GitHub, Flask, Jupyter Notebook, Tkinter, Selenium

Education

University of Waterloo   *Waterloo, Ontario*
Bachelor's of Computer Science, Co-op   *Sept 2022 - Present*

- Cumulative GPA: 3.9/4.0

Experience

Software Developer Intern   *Oakville, Ontario*
Hatch   *July 2022 - Aug 2022*

- Developed a dynamic GUI using **Tkinter** in Python for an ore smelting calibration tool
- Improved run time of an ore smelting calibration tool by **8 times** by integrating parallel processing

Co-Founder of Programming Club   *Oakville, Ontario*
Abbey Park High School   *Sept 2021 - June 2022*

- Constructed lessons and problem sets to prepare club members for programming competitions
- Taught Python basics weekly to **50+ club members** featuring topics such as databases and algorithms

Projects

FiTracker   *github.com/ShiftyTS/FiTracker*
React, Node, Express, MongoDB, Tailwind CSS

- Developed a **MERN** stack web application that allows users to create accounts and track their past workouts
- Built frontend using React and Tailwind CSS to establish a modern UI that adapts to different viewport sizes
- Created a **RESTful API** backend using Node and Express, stored data in MongoDB Atlas
- Encrypted passwords with **bcryptJS** and added authentication using **JSON Web Tokens**

COVID-6ix   *github.com/ShiftyTS/COVID-6ix*
Python, Selenium, Flask, HTML

- Built a web scraper to determine current COVID-19 statistics in the Greater Toronto Area, displayed in an HTML/Flask frontend and organized using tables across separate tabs for improved readability

Sudoku Board Generator and Solver   *github.com/ShiftyTS/Sudoku*
Python

- Developed a Sudoku program which randomly generates a 9x9 Sudoku board based on the chosen difficulty
- Allows the user to reveal the solution to the board which is determined using a **backtracking algorithm**

Twitter Currency Exchange Rate Bot   *github.com/ShiftyTS/TwitterBot*
Python, Selenium

- Developed a bot to automatically scrape the web for current CAD exchange rates and tweet out the data

Personal Portfolio Website   *shiftyts.github.io*
HTML, CSS, JavaScript

- Created a personal portfolio website to introduce myself and display my side projects, stylized using various animations and designed to be responsive on different viewport sizes

Interests

Anime Video Editing, Cooking Fettuccine Alfredo, Playing Piano, Personal Fitness, Discovering New Music