Ethan Phan

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EDUCATION

University at Buffalo, The State University of New York, Buffalo, NY   May 2024
B.S. in Computer Science
GPA: 4.00, Honors: Dean's List, Pride of New York Scholarship

EXPERIENCE

Undergraduate Teaching Assistant, **University at Buffalo**, Buffalo, NY   August 2022 - Present
- Assist faculty in teaching students by leading students through recitation activities related to topics discussed in lectures.
- Assess assignments from students and provide quantitive and qualitative feedback promptly.
- Collaborate with faculty and consult feedback on issues regarding the class or recommendations for improving the class.

Front-end Developer, **Bellows Gardens Inc.**, Southampton, NY   August 2022
- Collaborated with the owner of Bellows Gardens Inc to develop and design the company's first website.
- Utilize HTML, CSS, and JavaScript in the production of the static website.
- Website is to be used as an online portfolio of the company's work to present to current or prospective clients.

PROJECTS

Dynamic Memory Allocator, **C**   November 2022
- Implemented a dynamic memory pool allocator that manages a systems heap space and is capable of replacing the standard C library functions malloc, calloc, realloc, and free.

Abstract Genetic Algorithm, **Scala**   April 2022
- Engineered a custom genetic algorithm that could be used to produce the best solution to abstract problems given a data set incubator and a cost function.
- Algorithm generated random decimals (genes) that were put in an incubator to create data samples stored in lists. The best samples are saved and mutated. Added more random genes to the list and the process was repeated via recursion.

Self-Checkout Machine, **Scala**   February 2021
- Designed a self-checkout machine that switches states, using Object-Oriented Programming, to incorporate different functionalities.
- Polymorphism and Inheritance were also heavily utilized to store the user's cart and information associated with the items themselves.

Vaccination Data Web Application, **Python, JavaScript, and HTML**   December 2021
- Assembled a web application that fetches CDC data and neatly displays the data on a webpage using plot.ly graphs and charts.
- Web application ran on a bottle web server that used AJAX to fetch the necessary data.

SKILLS

Computer: Git, Python, C, Scala, JavaScript, HTML/CSS, Java, OOP, FP, Bottle Web Framework, SQLite3. MIPS Assembly, QTSpim, System Verilog
Language: Fluent in English and Vietnamese, Familiar with Spanish and Korean