William Zheng

willizhe@umich.edu • 248-648-0651 • 2222 Fuller Ct Apt 610A, Ann Arbor, MI, 48105

OBJECTIVE

Third year undergraduate seeking a summer 2024 internship experience related to computer science, software engineering, or software technology.

EDUCATION

University of Michigan   **Ann Arbor, MI**

Major: Computer Science-College of Engineering   *May 2025*

GPA: 3.67 / 4.00

Awards: University Honors 2022, William. J Branstrom Freshman Prize (awarded to top 5% of freshmen class/Fall 2021)

Coursework: Data Structures and Algorithms, Introduction to Statistics and Data Analysis, Programming and Introductory Data Structures, Discrete Math, Calculus I & II, Linear Algebra

SKILLS

Programming Languages: C++, Java, Python, HTML, CSS, JavaScript

Software: Linux, MS, Microsoft office suites, pip, Python Virtual Environments

IDE: XCode, Visual Studio Code

Python Libraries: NumPy Pandas, Matplotlib, Pytorch, Open AI Gymnasium, Selenium, tkinter

PROJECT/CLASS EXPERIENCE

EECS 281 Data Structures and Algorithms   **Ann Arbor, MI**

August 2022 – December 2022

- Created data structures in C++ to efficiently simulate and manipulate information in a relational database.
- Optimized algorithms to find the minimum spanning tree and quickest path given a set of points.

Personal Projects   **Bloomfield Hills, MI**

2019 - Present

- **NEAT Stock Trading Neural Network**: Generated neural networks using stock price action and volume data from leading tech companies (i.e. Amazon, Apple, Tesla) to outperform the simple "buy and hold" strategy.
- **Computer Graphics**: Projected a rotating 3D parallelogram onto a 2D plane in 3D space, using linear algebra, Python, and Matplotlib, see link.
- **Computer Vision**: Developed a neural network utilizing the MNIST database to recognize handwritten digits using gradient decent and back propagation in Python.
- **Web Automation**: Used Selenium to automatically register a user for Lifetime Fitness yoga class reservations.
- **Web Scraping**: Scraped the League of Legends wiki using Selenium to acquire champion statistics.
- **Neural Network:** Simulated and trained a simple neural network to give outputs of a parabolic function, see link.
- Link to my GitHub Repository: https://github.com/NovaBro?tab=repositories

ACTIVITIES

                                                                                                  Ann Arbor, MI

Wolverine Soft Club Member   *2022 - 2023*

- Developed an Atari Space Shooter video game replica using Unity.
- Collaborated with club members in a Game Jam competition to develop a game in 2 days. The event is hosted twice a semester.

WORK EXPERIENCE

Saladworks   **West Bloomfield, MI**

Crew Member   *July 2022 – Aug 2022*

- Maintained high standards of customer service during high-volume, fast-paced operations.
- Assisted management with inventory control and stock ordering.
- Handled currency and credit transactions quickly and accurately.

Hobbies: Working Out, Rock Climbing, Video Games, Origami