

Lei Yao

Projects I've Worked on

● **Arcade Machine - Python, Git, OOP, Pycharm, SDLC, Testing**

- Led a small team of 5 in planning, documenting, and presenting.
- Worked with Python and APIs for raspberry pi.
- Focused on codes for I/O on hardware and helped other programmers with debugging and quality assurance.
- The project was later used for school promotion.

● **Personal Website - JS, CSS/HTML, Git, Brackets, SDLC**

- Designed and built a website using CSS/HTML and some jQuery.
- Used tools like Brackets IDE and GitHub.
- Followed a basic SDLC process of planning, designing, implementing, testing, deploying and maintaining.

● **Hackto 2022 - JSON, CSS/HTML, Map API**

- Created a partially completed web app that creates safer travel routes in Toronto.
- Worked with CSS/HTML, Leaflet map APIs and processing and visualizing JSON files from the database.

● **Wordle - Java, OOP, Git, PERT/GANTT charts, VS Code, SDLC**

- Developed a Java version of Wordle with two other friends.
- Used VS code environment, basic OOP techniques, and classic CI/CD tools like GitHub.
- Worked on class for user input and feedback systems.
- Also helped with PERT/GANTT charts as part of the SDLC process.

● **Snake - Java, OOP, Eclipse**

- Recreated Snake in Java with OOP techniques, including multiple modes and a customizable UI.
- Used Eclipse IDE throughout the project.
- Used OOP concepts such as data encapsulation, inheritance, polymorphism, etc.

● **Discord Bot - Python, OOP, Pycharm**

- Created a Discord bot with Python using Discord API.
- It features role creation, message purging, and member banning/unbanning.

● **Physics Simulator - Python, Pygame, Pycharm**

- Created a physics simulator using Python and Pygame with self-made classes for a simple UI.

● **Robotic Team Website - JS, CSS/HTML, Git, Brackets, Testing**

- Maintained and updated the school's robotics team website; trained team members to do the same.

Skills

● **Language (computer)**

- Python, CSS/HTML, Java, Core JS, C/C++, Racket and VB.

● **Object-Oriented Programming**

- Basic understanding of OOP with Java and Python.
- Have software development experience with OOP.

● **Software Development**

- Able to make software with SDLC and basic CI/CD tools like GitHub.
- Familiar with the Linux shell environment, creating bash scripts and basic Automation for repetitive tasks.

● **Web Development**

- Good understanding of CSS/HTML and basic JS animation.
- Fully designed and built a website from scratch.

● **Language**

- Fluent in Mandarin and English.

● **Communication**

- An effective communicator with knowledge of interpersonal communication
- Have the ability to cooperate in a team.

Educational Background

● **University of Waterloo**

Waterloo, Ontario, Canada

Bachelor of Computer Science

2022 - Present

Currently taking a degree in CS/Digital Hardware with a plan to minor in combinatorics and optimization and computational mathematics. Planning to pursue graduate school after graduation.

Current GPA: 3.94/4

Awards and Certifications

- OBEA Website Development Sr. Contest Champion
- Core Javascript and Canvas Programmer Certificate
- Canadian Computing Competition 2022 School Champion