

Jerry Liu

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EDUCATION

Carleton University

Bachelor of Computer Science

- Fourth year standing

Ottawa, Canada

(Expected graduation April 2023)

PROJECTS

Nine Men's Morris AI | *Python*

March 2022-June 2022

- Used OOP to create a playable game with responsive UI
- Implemented an AI through the use of adversarial search and min-max game trees
- AI has demonstrated the ability to make intelligent plays and win against non-optimal strategies

Webots maze navigation | *Java*

December 2021

- Simulated a robot able to navigate a maze and deliver parcels through the implementation of inverse kinematics and path planning

Course management system | *C#, HTML, Node.js, ASP.NET*

February 2021-April 2021

- Collaborated with a group of programmers, managing task division and meeting schedules
- Proposed and implemented the use of Visitor, Factory and Observer designs using UML diagrams to accurately reflect relationships between students, professors, and courses
- Applied CSS and HTML to enhance the UI of the website, making it more appealing to users

Glad-AI-tors | *Python, Pygame*

February 2020-March 2020

- Designed an AI for an arena-style game involving firing projectiles and avoiding obstacles
- AI is able to shift between different tactics and strategies depending on current situation
- AI has defeated 75% of other competitive AI programs

COMMUNITY & LEADERSHIP

Vice President

May 2020-April 2021

Carleton Computer Science Society

Ottawa, Canada

- Acted as the liaison between the School of Computer Science and 2000+ computer science students
- Encouraged student participation and promoted engagement to improve the quality of life for computer science students by hosting and promoting social events
- Facilitated internal discussions and supported by creating promotional materials, organizing, and hosting events with 40+ attendees
- Helped organize hackathons and technical talks to enrich student experience and broaden pathways

EXPERIENCE

Lifeguard and Swim Instructor

September 2016-April 2017

City of Markham

Markham, Canada

- Created a safe and effective environment for swimmers through creative thinking and use of equipment when pool space was inaccessible due to scheduling errors

Math and English Teacher

September 2018-August 2019

Kumon North America

Scarborough, Canada

- Directed communication and sales between parents to promote efficient transactions and proper workload distribution
- Supervised and guided children through their education by establishing a mutual relationship and motivating them

PROGRAMMING SKILLS

Languages

- Java, C/C++, Python, SQL, HTML, CSS, Javascript, Scheme, Prolog

Softwares

- Node.js, Mongoos, MongoDB, Unity, Webots, ArcGISPro, Gamemaker2, VirtualBox

Others

- Object-oriented programming, unit testing/debugging