

RAYYAN HUDA

rayyanhuda.com rayyanshuda@gmail.com [linkedin/rayyanshuda](https://linkedin.com/in/rayyanshuda) github.com/rayyanshuda

EDUCATION

UNIVERSITY OF WATERLOO | 3.5 GPA

September 2024 - April 2029

Systems Design Engineering (Bachelors of Applied Science)

Awards: President's Scholarship of Distinction

TECHNICAL SKILLS

Languages: Python, Java, C/C++, HTML/CSS, JavaScript, SQL, MATLAB

Tools: Figma, SolidWorks, AutoCAD, Google Cloud, Node.js, Pytest, Jira/JQL, Boost(C++), MS Office Suite

PROJECTS

PORTFOLIO WEBSITE | JavaScript, HTML, CSS | January 2025

[/portfolio-site](#)

- Developed a fully responsive website with **interactive elements**, including hover effects, dynamic animations, smooth transitions, and **jQuery** effects to improve user engagement.
- Deployed on GitHub pages optimizing load times and ensuring site security, achieving **99% performance** and **85% accessibility scores** on Lighthouse using Chrome DevTools.
- Optimized the design for various screen sizes and cross-device compatibility using media queries, and ensuring a **speed index of 0.6 seconds**.

LIBRARY SYSTEM | C++ | December 2024

[/library-system](#)

- Designed a Library Management System in C++ with **4 core modules**, able to manage more than **1,000 books and 500 users**.
- Developed classes for books, libraries, and a hierarchical library user structure, supporting **100+** unique user interactions across Teacher and Student roles.
- Implemented **inheritance, polymorphism, and encapsulation** to deliver a scalable system, reducing code duplication by **30%** and a response time under **50 ms**.

CONNECT FOUR REPLICA | Java | May 2024

[/connect-four](#)

- Developed an **object-oriented** Connect 4 replica game that enables a two-player mode and handles player input through **event handling** and **method invocation** to allow keyboard interactions to place counters in the grid and increase efficiency by **60%**.
- Implemented an **object array** and core mechanics, including alternating turns and win condition checks using **static and instance methods** to manage game logic and improve runtime by **45%**.
- Designed a user-friendly interface with **GUI components** for an interactive player experience

WORK EXPERIENCE

TEACHING ASSISTANT

March 2023 - August 2024

Kumon Institute of Education Co. Ltd. | Surrey, BC

- Delivered personalized instruction and customized learning plans to improve students' academic performance, focusing on critical thinking and problem-solving skills.
- Evaluated assignments, monitored progress using data-driven approaches, and devised innovative strategies to address individual learning needs.
- Leveraged analytical and organizational skills to manage multiple students' performance data, ensuring continuous improvement and measurable academic growth.