

RAYYAN HUDA

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EDUCATION

UNIVERSITY OF WATERLOO

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, SQL, MATLAB

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

PROJECTS

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

FOOD ORDERING APP | Figma | March 2024

 /food-app

- Designed a **high-fidelity prototype** for a food ordering app incorporating over 20 interactive screens and intuitive navigation.
- Streamlined user flows for order placement, checkout, and profile management by designing **15+ wireframes** for menus, notifications, and payment methods, reducing steps by **30%** to increase efficiency and user satisfaction.
- Enhanced usability by testing navigation pathways, achieving a **90% positive response rate** from simulated user testing sessions.

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.