Rayyan Huda

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Education

University of Waterloo   *Sept 2024 – Present*
BASc in Systems Design Engineering

- GPA: 3.5/4.0
- **Relevant Coursework:** Data Structures and Algorithms, Digital Computation, Digital Systems
- **Awards:** President's Scholarship of Distinction

Skills

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

Tools: Figma, MySQL, Vite, Git, Jira, Microsoft Excel, Markdown, npm

Frameworks & Libraries: React, Node.js, Next.js, Three.js, TailwindCSS

Experience

Front-End Developer   *Cambridge, ON*
Rhythm & Blues Cambridge, Dumbo Octopus Consulting   *Jan 2025 – April 2025*

- Developed and deployed multiple front-end components using HTML, CSS, and vanilla JavaScript, contributing to a **35%** increase in site responsiveness and improved cross-browser compatibility.
- Designed **10+** responsive webpage wireframes and high-fidelity mockups in **Figma**, incorporating board directors' feedback, to focus on UX development and improve site structure.
- Optimized UI/UX for accessibility and SEO by implementing semantic HTML and ARIA roles, resulting in a **40%** improvement in Lighthouse scores, increased search visibility by **35%** and longer user engagement.

Projects

Movies Search Application — React, Vite, Node.js, React Router, TMDb API   ○ */movies-search* ↗

- Developed a responsive single-page application using **React**, **Vite**, **Node.js**, and **React Router DOM**, implementing client-side routing and dynamic rendering of TMDb API data.
- Utilized **React Context API** and **custom hooks** to manage application state for user-selected favorites, with **localStorage integration** for persistent user experience.
- Integrated **asynchronous data fetching** with **async/await** and **fetch API** to retrieve movie data from The Movie Database (TMDb), implementing error handling and loading states with React **useState** and **useEffect** hooks.

Portfolio Website — HTML, CSS, JavaScript, jQuery, Three.js   ○ */portfolio-website* ↗

- Developed a fully responsive website using **HTML**, **CSS**, **JavaScript**, and **jQuery**, implementing reusable UI components with hover effects, dynamic animations, and DOM-based interactivity.
- Integrated **Three.js** to render interactive 3D models exported from SolidWorks, allowing orbit, zoom, and pan manipulation and detailed exploration of the mechanical designs.
- Optimized load times, site security, and performance, achieving a **99%** Lighthouse performance score, **85%** accessibility rating, and **0.6 second** speed index.

Library Management System — C++   ○ */library-system* ↗

- Developed a **C++** Library Management System with four core modules, managing **1,000+** books and **500** users with a scalable backend architecture for performance optimization.
- Applied OOP principles using books, libraries, and a hierarchical user structure to reduce code duplication by **30%** and ensure **sub-50 ms** query response times.
- Designed access control with user roles and permissions, enabling **100+** secure interactions system-wide.