

Hirav Thakur

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Technical Skills

Languages: Swift, C, C++, C#, Java, JavaScript, Python, Bash, HTML, CSS, SQL, Racket

Tools, Frameworks, IDEs: REACT.js, .NET, Node.js, Unix/Linux, SQLite, LINQ, VS Code, XCode, Unity, Git, Adobe Photoshop, Vegas Pro 16, MS Office Suite

Certifications: Microsoft Certified: Azure AI Fundamentals, Microsoft Certified: Azure Fundamentals

Projects

The VALORANT Protocol Web Application | JavaScript/HTML/CSS

Built on VSCode

[Front-end Project](#)

- Developed a responsive web application using **JavaScript, HTML and CSS**, built using the **REACT.js** framework.
- Implemented appropriate **design principles** to create an interactive encyclopaedia featuring characters and maps from the renowned tactical shooter Valorant by Riot Games.
- Designed cards with complete functionality, displaying descriptions and origins upon user interaction.
- Uses a **robust search functionality** to enable users to quickly find specific characters and maps, coupled with effective error alert handling for a seamless experience.
- Engineered an **intuitive side-menu for easy navigation**, with plans for future expansion to include Valorant items and a roster system.

Chess with Functional AI | C++

Built on VSCode

[Project](#)

- Developed an expanded version of classic Chess using **MVC architecture**.
- Implemented **extensive gameplay variants**: human vs. human, human vs. computer (with **multiple AI difficulties**) and computer vs. computer.
- Incorporated custom setup options and **Quality of Life (QoL) features** to enhance user experience.
- Applied **comprehensive object-oriented programming principles** throughout project development.
- Utilised proper memory management, using dynamic memory to its fullest capabilities.

Percy Jackson's Trivia iOS App | Swift/SwiftUI

Built on XCode

[Front-end Project](#)

- Developed with **Swift**, built an app that cycles through trivia about the famous fictional character Percy Jackson.
- Designed using a wireframe and built on the **MVVM** software design pattern.

Work Experience

David R. Cheriton School of Computer Science, University of Waterloo

Waterloo, ON

CS200 Instructional Support Assistant

January 2024 - April 2024

- Mentored students in **HTML, CSS, SQL, Excel scripting** and **Relational Databases**.
- **Led** instructional labs, offering targeted support for course assessments and exams.
- Graded assignments, midterms and final projects, **providing detailed feedback** to students.
- Conducted personalised office hours, addressing individual questions and **providing in-depth assistance**.
- **Managed course email** communications to ensure smooth administrative operations.

WE Accelerate Program, University of Waterloo

Waterloo, ON

Team Member for Project: Preventing Financial Fraud against Older Adults

May 2023 - August 2023

- **Collaborated** on a project using **Microsoft Azure AI** to combat financial fraud against elders.
- **Developed** an Azure AI **pipeline** to detect malicious web links.
- Designed **FraudAlert**, an application using **REST APIs** to integrate Azure AI for **real-time fraud detection**.
- **Crafted a business case** to secure investor interest in the AI application's financial viability.
- Presented FraudAlert to **Microsoft industry partners**, showcasing its potential impact.

Education

University of Waterloo

Waterloo, ON

Computer Science, Honours with Co-operative Program, Artificial Intelligence Specialization, History Minor

Graduation Date: April 2027