

Jiayu Hu
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jennyho5.github.io/personal-site

EDUCATION

Bachelor of Computer Science Carleton University, Ottawa, ON, Canada <ul style="list-style-type: none">Fourth-Year Standing, CGPA: 11.50/12.0 (95.83%)	Sep 2022-Apr 2024
Bachelor of Management in Accounting Zhongnan University of Economics and Law, Wuhan, China <ul style="list-style-type: none">Final GPA: 3.8/4.0 (89.84%)	Sep 2018-Jun 2022

WORK EXPERIENCE

Software Engineer Intern TD Bank, Toronto, ON <ul style="list-style-type: none">Designed and developed business dashboards for the VP using JavaScript and Rest API of Jira and Confluence, resulting in a 50% increase in data accessibility and a 20% improvement in decision-making efficiencyWorked as a training coordinator to implement Agile methodologies in the fraud team, contributing to the software development lifecycle of various fraud products	May-Aug 2023
Audit Intern Ernst & Young, Shanghai, China <ul style="list-style-type: none">Finalized audit reports and financial statements of 2 publicly listed companies by the end of the accounting yearEffectively communicated financial findings and insights with professionals and stakeholders, fostering a collaborative and transparent work environment	Jan-Feb 2021

PROJECTS EXPERIENCE

Full-Stack Developer Elevator Simulator COMP3004, Carleton University <ul style="list-style-type: none">Designed comprehensive use cases and UML diagrams to accurately model real-world elevator systemsImplemented the design in Qt C++, ensuring high-quality performance and functionality	Jan 2024-Present
Game Developer Starfield Jumper Develop at Ubisoft Programming Challenge <ul style="list-style-type: none">Programmed a 2D platformer game on Windows in C++ with clean extensible code and well-managed data flowPrototyped the gameplay systems for character movement, combat, AI behaviour, and level designImplemented tilemap system, state machine system and game object classes from scratchDesigned random algorithms to generate the tilemap randomly every time a new game level is startedUsed game programming patterns such as State, Factory and Singleton to make code cleaner to understandIntegrated third-party library OpenGL and provided API to render graphics on the screen	Nov 2023-Jan 2024
Game Developer Mouse in the House Narrative-Driven Adventure Game <ul style="list-style-type: none">Crafted clean and efficient C# code to implement intricate quest, dialogue, save/load systems, etc.Design game features such as animation systems, UI, and level design using UnityPrototyped mechanics for narrative-driven puzzles and game levelsUsed game programming patterns such as Singleton and Observer to make code cleaner to understand	May 2023-Sep 2023
Game Artist Nature Calls Hack the Hill 2023 Game Jam Challenge <ul style="list-style-type: none">Drew dynamic characters and background art assets using Clip Studio Paint to fit the game themeCollaborated with game programmers and writers to realize a shared vision of the game	Mar 2023
Backend Developer Chat Server COMP2406, Carleton University <ul style="list-style-type: none">Developed a real-time chat server using JavaScript and Node.js with the socket.io moduleImplemented group and private chat modes for multiple browser clients, enhancing interactive communication	Mar 2023

Backend Developer | Word Puzzle | COMP2406, Carleton University**Feb 2023**

- Engineered a dynamic word puzzle web server utilizing **JavaScript** and **Node.js** built-in modules
- Designed an intuitive drag-and-drop interface, challenging users to arrange scrambled words into the correct phrase order

Full-Stack Developer | [co:ver letter](#) | SheHacks+7 Hackathon, Western University**Jan 2023**

- Built a **web application** utilizing the NLG toolkit **API**, achieving a 70% accuracy rate in generating cover letters based on the job description and resume within seconds
- Demonstrated proficiency in both frontend (**HTML, CSS, JavaScript**) and backend technologies (**Python, Flask**)

Game Developer | [Galaxy Shooter](#) | 2D Shooting Game**Dec 2022-Jan 2023**

- Utilized **Unity** to detect collisions, receive user input, play sound effects and visual effects, etc.
- Programmed in **C#** to implement the logic for the game loop, player, enemies, power-ups, etc.

Full-Stack Developer | [Simple Search Engine](#) | COMP1405, Carleton University**Sep-Dec 2022**

- Implemented a simple search engine using **Java** and **Python** for accurate keyword-based results from the database
- Created an intuitive **GUI** using JavaFX, enhancing user experience and facilitating seamless interaction

Team Member | [Empowering Solar Panel with 5G Network](#) | Discover Kanata Hacks, Ottawa**Sep-Dec 2022**

- Built **functional prototypes** for a mobile app using 5G and IoT to monitor and control the home solar system kit
- Presented the project's technical aspects and potential impact to professionals in **network** fields

Web Developer | [Jiayu's Personal Website](#)**Sep 2021-Present**

- Crafted a dynamic and interactive personal site, leveraging the power of **HTML, CSS, and JavaScript** to showcase a diverse portfolio of projects and artwork on GitHub Pages
- **Updated and maintained** the site using **version control tools** such as **Git** and **GitHub** over a span of three years

AWARDS AND SCHOLARSHIPS

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| • 2022-2023 Clarence C. Gibson Scholarship | • 2022 Discover Kanata Hacks, 1st-Place |
| • 2022-2023 Deans List | • 2023 Hack the Hill Game Jam, 2nd-Place |

TECHNICAL SKILLS

- Programming languages: HTML, CSS, JavaScript, Java, C#, Python, C, C++, Haskell
- JavaScript Libraries and Frameworks: jQuery, React.js, Node.js
- Database Systems: PostgreSQL, MongoDB
- Development Tools: Postman, Visual Studio
- Operating systems: Unix/Linux, Windows
- Version control: Git, GitHub