

# Lesley Hou

[lesleyhou28@gmail.com](mailto:lesleyhou28@gmail.com) | [linkedin.com/in/lesleyhou](https://linkedin.com/in/lesleyhou) | [github.com/lesley-hou](https://github.com/lesley-hou) | [lesleyhou.com](https://lesleyhou.com)

## EDUCATION

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### Western University, Ivey Business School

London, ON, Canada

*Bachelors of Science (Computer Science), Bachelors of Arts (Honors Business Administration)*

*April 2025*

- **Coursework:** Data Structures and Algorithms, Systems Programming, Computer Organization and Architecture, Linear Algebra, Discrete Structures, Object-oriented Design and Analysis, Computer Graphics

## EXPERIENCE

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### Perpetua

May 2024 - August 2024

*Software Engineer Intern – Full-stack*

*Toronto, ON, Canada*

- Updated depreciated Amazon API calls by transitioning from instance-level to rule-based audience API, enabling support for non-Perpetua account IDs for Amazon Marketing Cloud audiences
- Developed and implemented dynamic web components, including Ad Preferences and Advanced Flight modals, utilizing React.js to optimize user customization and enhance advertisement management
- Triaged and resolved workflow errors by identifying root causes and implementing efficient backend fixes
- Refactored existing backend endpoints to ensure idempotency, enabling automated retries for failed workflows

### Perpetua

May 2023 - August 2023

*Software Engineer Intern – Frontend*

*Toronto, ON, Canada*

- Developed optimizations to goal editing flow, reducing editing time by 24% with a bulk update functionality to allow global changes within the Multi-Ad Group Harvesting editing process
- Streamlined navigation flow and modernized existing interfaces, implementing UI/UX improvements for goal configuration and adding targets to goals
- Enhanced code performance, maintainability, and long-term scalability with a comprehensive refactoring initiative to replace legacy web components with modern counterparts

### Greencube Analytics

May 2022 – August 2022

*Software Engineer Intern – Backend*

*Toronto, ON, Canada*

- Developed and implemented backend endpoints using SQLAlchemy to handle complex database operations
- Designed and developed a robust web crawler to retrieve company news and insights from an online database and prospecting platform to streamline lead generation and enhance data accuracy

## PROJECTS

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### Game Boy++ | C++

- Developed a Game Boy emulator using SFML for graphics emulation and sprite rendering, and Catch2 for testing

### Ivey Learn Plus | Javascript

- A Chrome extension with a 23% adoption rate among HBA1 students that streamlines Ivey room bookings through user-friendly UI components, simplified access to personal bookings, and additional room specifications

### Breakout | Python

- Developed a 2D sprite-based top-down shooter video game using Pygame, implementing game mechanics such as character movement, enemies, level design, and in-game HUD elements based on the Binding of Isaac

## OTHER ACTIVITIES AND INTERESTS

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### Computer Science Undergraduate Society | Web Developer

- Spearheaded a comprehensive website redesign project to enhance student experience, usability, visual appeal, and content organization using React.js and Tailwind

### Hack Western | Web Lead, Full-stack Developer

- Led a team of 6 developers in building the promotional site, application portal, and the live site using Next.js and PostgreSQL for Hack Western, one of Canada's largest hackathons that welcomes 800 participants annually

## TECHNICAL SKILLS

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

**Frameworks and Tools:** React.js, Flask, Next.js, Tailwind, Django, React Native, Git, Docker, Postman

**Interests:** Design thinking, UI/UX, Software Development, Prototyping