

Andy Pak

✉ paka4@mcmaster.ca | [in linkedin.com/in/andy-pak](https://www.linkedin.com/in/andy-pak) | ☎ 647-907-7952 | github.com/PakmanGames | andypak.me

Software Engineering Student | Available for 4-16 Month Co-op Starting May 2025

EDUCATION

McMaster University

September 2023 - April 2027 (Expected)

*Bachelor of Engineering in **Software Engineering (Co-op)***

Hamilton, ON

- Awards: The McMaster University Award of Excellence, Deans' Honour List
- **Relevant Coursework:** Digital Systems and Interfacing, Object-Oriented Programming, Computer Architecture, Discrete Mathematics, Data Structures and Algorithms

EXPERIENCE

Open Source Developer

September 2024 - Present

Google Developer Student Clubs McMaster University

Hamilton, ON

- Worked as part of a **10-person team** to design, develop, and build and enhance a **Full Stack web application**, focusing on **agile sprints of development** and collaborative problem-solving.
- Developed a responsive and cross-platform compatible, **mobile-first progressive web app** using **Next.js**.
- Developed **CRUD API functionalities** using **Express.js** backend and a **MySQL relational database**.

Computer Science Tutor

April 2022 - June 2022

Middlefield Collegiate Institute

Markham, ON

- **Guided students** in groups of up to **30 students** in writing functional, **modular Java code**.
- Simplified complex programming concepts for beginners, improving their foundational understanding.
- **Taught core data structures** and commonly used libraries, helping students grasp efficient coding techniques.

PROJECTS

AnonAlyze (🔒 🔒) | *Next.js, Tailwind CSS, Express.js, Node.js, Apify API, OpenAI API* November 2024

- **Winner of Best Security Hack** at a hackathon, by assessing privacy risks and enhancing user awareness.
- Developed a **RESTful API** back-end infrastructure using **Express.js** to connect the front-end with external APIs, including Apify and OpenAI, enabling seamless data retrieval and privacy analysis for users.
- Leveraged Apify's API to **webscrape** publically available Instagram data, to be analyzed and assess privacy risks.
- Designed a responsive, **user-friendly UI** with **Next.js** and **Tailwind CSS**, adaptable to all screen sizes.

Menti App (🔒) | *Java, Spring Boot, JavaFX, OpenAI API*

January 2024

- **Winner at SerenityHacks 2024** a 33-hour Hackathon for developing a comprehensive habit-tracking app.
- Developed a feature-rich habit-tracking desktop app, including goal-setting to-do lists, and a meditation zone.
- **Leveraged OpenAI's gpt-3.5-turbo** model to provide responsive, personalized feedback, enhancing UX.
- Built with **JavaFX** for a dynamic front end and **Spring Boot** for a robust back end.

Sumobot | *Arduino/C++, Hardware and Electronics, Circuit Prototyping*

January 2024

- **Achieved 4th** place in the McMaster Sumobot competition, competing in a high-stakes bracket division.
- Programmed an **autonomous, adaptive sumo robot** using Arduino/C++.
- Designed and prototyped **sensor-integrated circuits on a breadboard** for optimal performance.
- Implemented Arduino UNO R3 as the primary microcontroller, enabling **efficient processing and control**.

Moonlighter | *Java, Swing, Java AWT, UI/UX, Animation*

May 2023 - June 2023

- Built a 2D top-down dungeon game inspired by *Moonlighter*, emphasizing roguelike gameplay.
- Applied object-oriented principles to **enhance modularity, organization, and maintainability**.
- Designed and implemented **custom animations, sprites, and sound effects** to enrich player experience.
- Created **engaging UI/UX** with multiple interactive interfaces and buttons for seamless user interaction.

SKILLS

Languages: JavaScript, HTML, CSS, Java, Python, Ruby, C, Bash, Verilog.

Frameworks: React, Next.js, Tailwind CSS, Express.js, Bootstrap.

Technologies: Git, Apache Maven, Linux, MongoDB, MySQL, Node.js, Arduino.

Developer Tools: GitHub, VS Code, Eclipse, IntelliJ, PyCharm, Autodesk Inventor, Figma.

Soft Skills: Problem Solving, Communication, Collaboration, Analytical Skills, Critical Thinking.

Additional Skills and Interests: Computer Science, Software Development, DevOps, Cloud Infrastructure.