Andy Pak

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EDUCATION

McMaster University — September 2023 - April 2027 (Expected)

*Bachelor of Engineering in **Software Engineering (Co-op)** — GPA: 3.7* — *Hamilton, ON*

- Awards: The McMaster University Award of Excellence, Deans' Honour List
- **Relevant Coursework**: Object-Oriented Programming, Software Design, 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 develop a **Full Stack web application**, leading back-end development and enhancements, while driving **agile sprints of development** to foster effective team problem-solving. 🔗
- Developed a responsive and cross-platform compatible, **mobile-first progressive web app** using **Next.js**.
- Developed **CRUD API functionalities** for managing journal tags, enabling effective journal organization, by using a **Express.js** backend connected to 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, **fostering engagement** and improving their foundational understanding, by using **interactive teaching methods** and real-world examples.
- **Taught core data structures** and commonly used libraries, helping students grasp efficient coding techniques.

PROJECTS

RBveal (🔗 ⓞ) | ***Next.js, Express.js, Node.js**, Twilio, OpenAI, Deepgram, Tailscale* — January 2025

- **1st Place Winner** for RBC's sponsor prize, earning winnings of **$1000** out of **130+** teams at UofTHacks 12.
- Designed and implemented a **multistage phishing simulation** by developing RESTful API endpoints and integrating external APIs using **Express.js** for seamless functionality.
- Developed a **Twilio media stream** for **real-time** phone call audio processing, enabling AI-driven interactions, enhancing phishing simulation realism via Deepgram for **speech-to-text** and OpenAI for response generation.
- Created engaging webpages, enhancing UX and interactivity, using **Next.js** and styled using **Tailwind CSS**.

AnonAlyze (🔗 ⓞ) | ***Next.js, 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.

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.
- Utilized OpenAI API to generate responsive, personalized feedback, enchancing UX.
- Built with **JavaFX** for a dynamic front end and **Spring Boot** for a robust back end.

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, Python, Java, Ruby, HTML, CSS, C, Bash, SQL.
Frameworks: React, Next.js, Express.js, Tailwind CSS, Spring Boot.
Technologies: Git, Node.js, Apache Maven, Linux, MongoDB, Firebase, MySQL.
Developer Tools: GitHub, VS Code, Canva, Figma, Eclipse, IntelliJ, PyCharm.
Soft Skills: Problem Solving, Critical Thinking, Strong Communication, Collaboration, Analytical Skills.
Additional Skills and Interests: Reading, Hackathons, Computer Science, DevOps, Cloud Infrastructure.