MICHAEL HA

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Education

McGill University **Aug. 2024 – Dec. 2028**
Bachelor of Engineering in Software Engineering Co-Op *Montreal, Quebec*
- GPA: 3.87

John Abbott College **Aug. 2022 – May 2024**
Diploma of College Studies in Sciences *Sainte-Anne-de-Bellevue, Quebec*
- R score: 34.519
- English Honours Portfolio (excellence in written English)
- Four-time Dean's list recipient

Skills

Languages: English (native), French (native), Vietnamese (elementary)
Programming Languages: Java, Python, C, C#, Bash, JavaScript, HTML/CSS, VHDL, R, Umple
Developer Tools: IntelliJ, PyCharm, VS Code, Eclipse
Technologies/Frameworks: Node.js, Express.js, EJS, Flask, Bootstrap, JavaFX, Tkinter, Selenium, BeautifulSoup, Linux, GitHub, SCRUM

Projects

Automated Courier Robot with BrickPi | *Python* **Sep. 2025 – Dec. 2025**
- In a team of 6, iteratively designed the hardware and software with version control of a small-scale delivery robot using EV3 sensors and motors with a Raspberry Pi.
- Utilized multi-threading to handle the automation of precise mapped movements, realignments, color detections, and event-driven behavior (state machine).

Cheese Manager MVC | *Java, JavaFX, Umple* **Sep. 2025 – Dec. 2025**
- In a team of 7, created a domain model (with a state machine), a controller, and a GUI (JavaFX) that let users handle, order, and sell cheese wheels in the context of wholesale companies buying from farms.
- Using Gherkin steps and Cucumber step definitions, fully validated controller methods with 200 different test scenarios and 100% tests acceptance.

Anilist Automated Liker | *Python, Selenium, Tkinter* **June 2025**
- Created a program that automates liking user status activities on the Anilist website.
- It provides an easy-to-use GUI for modifying locally saved login information and settings to adjust the quantity of likes. It also gives downtime to bypass the 1-minute timeout used by the site.

Recursive Tree-Based Game | *Java* **Apr. 2025**
- Engineered a game based on a quad-tree data structure with GUI integration.
- Utilized recursive search algorithms to navigate tree structures and 2D grids for goal evaluation and gameplay logic.

Population Common Ancestor Simulation | *R* **Apr. 2024 – May 2024**
- In a team of 2, simulated the ancestry of populations using probabilistic models to estimate the most recent common ancestor.
- Visualized trends and distributions across varying population sizes using R.

Tic-Tac-Toe Console Game | *C#* **Apr. 2024**
- Designed a customizable-board tic-tac-toe game with an AI opponent using pattern recognition logic.
- Adapted the win conditions based on board size.

Other Experience

@Hack 2025 (CTF Hackathon) **Mar. 2025**
Participant *Montreal, Quebec*
- Collaborated in a team of 2 to tackle CTF-style security challenges.
- Won first prize in the hardware time-based challenge.

French Tutoring **Jan. 2024 – May 2024**
Tutor *John Abbott College*
- Provided weekly academic support to beginner and intermediate French learners through the CAF - Moniteurs de Français program.
- Helped students strengthen French grammar, reading comprehension, vocabulary, pronunciation, and conversational skills in a structured, cooperative, and peer-led setting.