

# Michael Banna

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## EDUCATION

### Polytechnique Montreal

*Bachelor of Engineering in Software Engineering*

Montreal, QC

Aug. 2021 – May 2025

### The University of British Columbia

*Exchange Semester in Computer Engineering*

Vancouver, BC

Sep. 2023 – Dec. 2023

## EXPERIENCE

### iPadOS Developer – Final Software Engineering Project

Jan. 2025 – Apr. 2025

*Vis Fitness Inc. – Polytechnique Montréal*

Montreal, QC

- Collaborated with a fitness tech startup to develop a modern iPadOS application for professional workout program creation as part of a final-year capstone project.
- Engineered core application functionality using **SwiftUI**, **SwiftData**, and **gRPC**, with a focus on offline-first architecture and seamless server synchronization.
- Applied best practices in native Apple development to ensure a responsive, user-centered design aligned with Human Interface Guidelines.

### Software Developer Intern

Sep. 2024 – Dec. 2024

*Genetec Inc.*

Montreal, QC

- Contribute to the development and maintenance of web applications using **Angular**, **TypeScript** and **C#** for Genetec's flagship security product.
- Implement and test new features through unit and end-to-end testing, using virtual machines for proprietary software and leveraging telemetry analytics.
- Track project progress and manage tasks using **Azure DevOps** to ensure timely delivery and alignment with team goals, improving the overall UX and driving higher customer retention and onboarding rates for the new platform.

### Web Developer Intern

June 2023 – Dec. 2023

*Fastercom Inc.*

Montreal, QC

- Developed and enhanced features for an online vehicle fleet management and optimization platform using **React** and **TypeScript**, significantly improving functionality and user experience.
- Optimized development processes and enhance code efficiency, resulting in faster loading times and smoother performance.
- Collaborated closely with a cross-functional team of software developers and project managers to provide innovative solutions to optimize the platform's performance and successfully meet project goals.

## PROJECTS

### Concert Video Organizer iOS App | *Swift, SwiftUI, SwiftData, AVFoundation, ShazamKit* |

June 2024

- Developed an iOS app for efficient organization and labeling of concert videos, ensuring a responsive and user-friendly experience across all iOS devices.
- Implemented SwiftData to manage storage, enabling users to filter and sort videos by artist, tour, date, city, and venue.
- Integrated a custom video player with Picture-in-Picture and ShazamKit for automatic song detection, enhancing video labeling.

### Find The Difference Game | *Electron, Flutter, Node.js, Express, MongoDB, Firebase* |

April 2024

- Developed a multi-platform Desktop/Android online multiplayer image comparison game with seamless cross-play.
- Established game match data persistence using MongoDB and user authentication and notifications using Firebase.
- Implemented a breadth-first search algorithm to detect differences within an interactive drawing canvas.

## TECHNICAL SKILLS

**Languages:** JavaScript, TypeScript, Java, SQL, Python, Swift, Dart, C, C++, C#

**Frameworks:** Node.js, React, Angular, Svelte, Astro, Flask, Tailwind, SwiftUI, Flutter

**Libraries:** Jest, Mocha, Chai, Karma, Espresso, Storybook, Express, Socket.IO, Gradle

**Tools:** VS Code, Visual Studio, Xcode, Docker, WireShark, Figma, Adobe Creative Cloud, Affinity Suite