# Alex Turianskyj

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## **EDUCATION**

McGill University, B.Eng in Software Engineering Co-op

GPA: 3.68/4.00 | Aug 2021 – Dec 2025

• Key Courses: Algorithms and Data Structures, Operating Systems, Database Systems, Applied Machine Learning

#### **™** SKILLS

**Programming:** Python, Java, C#, TypeScript, C/C++, SQL, Bash | **Frameworks:** Angular, .NET, Spring Boot | **Tools:** Git, PostgreSQL, Postman, Selenium, JUnit, Pandas, NumPy, Unix, Unity | **Languages:** English, French

## **₩ORK EXPERIENCE**

Autodesk, Software Developer Intern

Montreal, QC | May 2025 - Aug 2025

• Enhancing real-time collaboration in Fusion, Autodesk's cloud-based design platform (**TypeScript**, **React**, **C++**).

Matrox, Software Engineering Intern

Montreal, QC | Jan 2024 - Aug 2024

- Engineered a **TypeScript** application and a custom **C# WebSocket** logger to streamline remote device analysis.
- Optimized log storage and filtering, preserving 75% more logs and supporting up to 3 concurrent log viewers.
- Built **Angular** components from Figma designs using **NgRx** for state management, enabling key device features including volume and keyboard layout control. Extended the **.NET REST API** for full-stack functionality.
- Integrated a **JUnit** and **Selenium** testing tool and authored end-to-end tests to ensure stability in new builds.
- Created and managed **Jira** issues for assigned features while identifying and resolving high-impact bugs.

Hydro-Québec, Software Development Intern

Montreal, QC | May 2023 – Aug 2023

- Automated manual validation tasks in Excel using **VBA** macros, reducing processing time by over 95%.
- Engineered a substation testing tool with **Windows Forms** and Distributed Test Manager, modularizing tests into **JavaScript** functions with interactive pop-ups while storing config data and results in structured **JSON** files.

## **SELECTED PROJECTS**

**Holoportation,** C++, C#, WinForms, Python, OpenCV ☑

Sep 2024 - Apr 2025

- Developed an augmented reality app for real-time 3D reconstruction on HoloLens 2 using RGBD cameras.
- Built upon the LiveScan3D system, improving functionality in C++ and ease of use with C# and WinForms.
- Processed frames received over TCP from LiveScan with **OpenCV** and YOLO-World for document detection.

Daily Ball, Unity, C# 🗷

May 2023 - Jul 2024

- Designed and developed a hypercasual 2D mobile game featuring a daily rotation of nine minigames in **Unity.**
- Achieved over 1000 downloads on Google Play and released a WebGL demo at dailyball.alext.dev
- Introduced new features and gameplay improvements based on player feedback, increasing retention by 30%.

**Vibe,** Python, Pandas, NumPy, SciPy, Streamlit ☑

Sep 2023 - Nov 2023

- Created a content-based music recommender in **Python** using **Streamlit**, available at **vibe.alext.dev**
- Pre-processed a 1-million-song dataset with **Pandas**, reducing its size from over 400MB to under 100MB.
- Optimized song output generation using **SciPy** and **NumPy**, achieving an average time of under 5 seconds.

UniTrade, Java, Spring Boot, React, PostgreSQL, GitHub Projects ☑

Jan 2023 - Apr 2023

- Collaborated with an 8-person **Agile** team to create a student marketplace using **Spring Boot** and **React**.
- Implemented and documented API endpoints while writing unit and integration tests using **JUnit** and **Mockito**.
- Served as Product Owner for Sprint 2, prioritizing tasks and authoring **Gherkin** scenarios for requirements.

## Choose Me a Movie, JavaScript, HTML/CSS ☑

Jan 2022

- Built a movie recommendation site using the TMDB API in a 4-person team during the McHacks 9 Hackathon.
- Independently revamped the UI and features in April 2025 and deployed it at choosemeamovie.alext.dev