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
- Relevant Coursework: Applied Machine Learning, Parallel Computing, Operating Systems, Software Validation

SKILLS

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

WORK EXPERIENCE

Autodesk, Software Developer Intern — Montreal, QC | May 2025 – Aug 2025
- Enhance Fusion's concurrent properties panel for real-time collaborative editing using **TypeScript** and **React**.
- Authored **Jest** unit tests and resolved numerous UI bugs, improving the panel's usability and visual consistency.
- Resolved critical **C++** backend issues, ensuring cache and analytics integrity with **Catch2** regression tests.
- Managed feature development and bug resolution in **Jira**, contributing to sprint planning and execution.

Matrox, Software Engineering Intern — Montreal, QC | Jan 2024 – Aug 2024
- Engineered a diagnostic **TypeScript** application and custom **C# WebSocket** logger to streamline 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.

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 **Windows Forms** substation testing tool, modularizing tests into reusable **JavaScript** functions.
- Designed a structured **JSON** format for config and results, enabling persistent storage and easier data analysis.

SELECTED PROJECTS

Holoportation, C++, C#, WinForms, Python, OpenCV — Sep 2024 – Apr 2025
- Built a HoloLens 2 app for AR astronaut training, named a Top 5 Finalist for the McGill Engine Capstone Prize.
- Enhanced LiveScan3D in **C++** and **C#** with **WinForms** for real-time 3D reconstruction using Femto Bolt cameras.
- Leveraged **OpenCV** and YOLO-World to extract documents from depth-masked RGB streams for AR readability.

Daily Ball, Unity, C# — May 2023 – Jul 2024
- Designed and developed a hypercasual 2D mobile game in **Unity** featuring a daily rotation of nine minigames**.**
- Achieved over 1000 downloads on Google Play and released a live WebGL demo at **dailyball.alext.dev**
- Increased player retention by 30% through new features and gameplay improvements driven by user feedback.

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 by over 75% (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 Actions — Jan 2023 – Apr 2023
- As Product Owner, led an 8-person **Agile** team to build a student marketplace with **Spring Boot** and **React**.
- Prioritized tasks, authored **Gherkin** user stories and implemented API endpoints with **JUnit** and **Mockito** tests.

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 redesigned and re-engineered the site in April 2025, live at **choosemeamovie.alext.dev**