Alex Turianskyj

Montreal, QC | alex.turianskyj@gmail.com | (514) 894-8508 | alext.dev | LinkedIn | GitHub

EDUCATION

McGill University, B.Eng. in Software Engineering Co-op — GPA: 3.68/4.00 | Aug 2021 – Dec 2025
- Coursework: Algorithms, Data Structures, Machine Learning, Parallel Computing, Databases, Operating Systems

SKILLS

Programming: Python, TypeScript, Java, C#, C++, SQL
Tools: Git, GitHub Actions, Postman, Bash, Unity, Jira
Testing: JUnit, Selenium, Cypress, Jest, Pytest, Catch2
Frontend: Angular (NgRx), React, HTML, CSS/SCSS
Backend: Spring Boot, .NET, PostgreSQL, REST API
Languages: English (native), French (native)

WORK EXPERIENCE

Autodesk, Software Developer Intern | TypeScript, C++, React — Montreal, QC | May 2025 – Aug 2025
- Developed a **C++** feature with **Catch2** unit tests to open historical versions of a design in the Fusion desktop client from URL parameters, enhancing deep link workflows and user navigation.
- Eliminated 5+ user-facing bugs affecting real-time collaborative editing in Fusion's **React** Properties panel and added **Jest** regression tests in **TypeScript**, improving usability and stability for 200,000+ customers.
- Refactored **C++** JSON event parsing with separate handling for model and component events, fixing a critical issue where the properties cache would not update for configured designs.
- Reduced incomplete panel analytics payloads by 80%+ by extending serialization for booleans and nested objects.
- Implemented a feature flag and **Cypress** end-to-end tests, enabling a controlled rollout of a new panel layout.

Matrox, Software Engineering Intern | TypeScript, C#, Angular .NET — Montreal, QC | Jan 2024 – Aug 2024
- Developed a **TypeScript** application with live display of critical device information to streamline remote analysis.
- Engineered a custom **C#** logger to stream device logs over **WebSocket**, accelerating root-cause troubleshooting.
- Optimized log storage and filtering, preserving 75% more logs and supporting up to 3 concurrent log viewers.
- Built **Angular** components from **Figma** designs with **NgRx** state management and extended the **.NET REST API** for full-stack functionality, enabling key device features including volume and keyboard layout control.
- Integrated a **JUnit** and **Selenium** testing tool and authored end-to-end tests to ensure stability in new builds.
- Actively contributed to sprint planning and execution, managing and resolving assigned feature tickets in **Jira**.

Hydro-Québec, Software Development Intern | JavaScript, VBA — Montreal, QC | May 2023 – Aug 2023
- Automated manual validation tasks in Excel using **VBA** macros, reducing processing time by over 95%.
- Engineered a **JavaScript** and **WinForms** testing tool and designed a JSON schema for efficient analysis of results.

SELECTED PROJECTS

Portfolio Website, TypeScript, React, Motion, Tailwind CSS — Jun 2025 – Aug 2025
- Crafted a responsive portfolio website using **React** and **Motion** with data-driven content for streamlined updates.

Holoportation, C++, C#, Python, .NET, OpenCV — Sep 2024 – Apr 2025
- Built an AR system for astronaut training on HoloLens 2, named a Top 5 McGill Engine Capstone Prize Finalist.
- 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
- Developed a hypercasual 2D mobile game in **Unity** and launched it on Google Play, achieving 1,000+ downloads.
- Increased player retention by 30% through game updates and released a WebGL demo at **dailyball.alext.dev**

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.