

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

- 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

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 Montreal, QC | May 2025 – Aug 2025

- Implemented a feature flag and **Cypress** end-to-end tests using **TypeScript** and **React**, facilitating the controlled rollout of a new layout for real-time collaborative editing in Fusion's Properties panel.
- Eliminated 5+ user-facing bugs and authored **Jest** regression tests, improving the panel's usability and stability.
- Developed a **C++** feature with **Catch2** unit tests to enable opening past design versions in Fusion from deep links.
- Resolved a critical caching issue by refactoring JSON parser to handle model and component events separately.
- Prevented data loss in analytics pipeline by updating serialization to support boolean values and nested objects.

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 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 Montreal, QC | May 2023 – Aug 2023

- Automated manual validation tasks in Excel using **VBA** macros, reducing processing time by over 95%.
- Engineered a **WinForms** testing tool for substations, modularizing tests into reusable **JavaScript** functions.
- Designed a structured JSON format for config and results, enabling persistent storage and easier data analysis.

🔗 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.alex.t.dev**

Vibe, Python, Pandas, NumPy, SciPy, Streamlit Sep 2023 – Nov 2023

- Created a content-based music recommender in **Python** using **Streamlit**, available at **vibe.alex.t.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.