Igor Chovpan

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Experience

Junior C++ Developer **July 2022 – July 2023**

Keepit; a backup solution for cloud services *Krakow, Poland*

- Launched Azure Devops backup coverage working with 3 teammates over the course of 12 months;
- Collaborated with Quality Assurance, Customer Support teams, provided technical documentation, presented projects to the CTO;
- Optimized the REST API efficiency by up to 99% in extreme cases by preventing the redownload of Work Items;
- Developed a file restore scheduling algorithm handling up to 10 million file dependencies;
- Refactored parts of C++20 development and Java 8 testing code, unified JSON parsing approach.

Firmware Developer **May 2025 – Present**

University of Toronto Aerospace Team *Toronto, ON*

- Contributing to the FINCH satellite firmware, resolving issues in a team, participating in technical discussions;
- Improving codebase reliability by ensuring all commits are buildable;
- Researching ways to increase image compression performance using parallel computing with SIMD.

Technical Skills

Languages: C++, Go, Javascript, Python

Other: Linux, bash, REST API, Svelte

Education

University of Toronto **Expected June 2027**

Computer Science Major, Mathematics Major, Coop student

Relevant coursework:

- CSC207 – Software Design – 86/100;
- CSC209 – Software Tools and Systems Programming – 85/100;
- CSC265 – Enriched Data Structures and Analysis – 91/100.

Supporting the Ukrainian community outside of class.

Projects

game-of-life

- Wrote a robust implementation for Conway's Game of Life mathematical simulation in Rust, Javascript, WebAssembly, ensuring memory safety and multiplatform support;
- Optimized time usage by using Hashlife high-performance algorithm and running it on a separate thread, allowing to render millions of state updates per second;
- Shared technical details by writing an explanation blog and implementing integration tests.

rm-exporter

- Researched limitations of note export for a reMarkable tablet, including inability to select a folder and failure to download notes larger than 10MB;
- Made a GUI client exporting any combination of folders and large notes using Go, Typescript and Svelte;
- Added the project to the *awesome-remarkable* list, reached 150 downloads and 27 stars on the Github repository.

raytracing-bench

- Implemented 3D raytracing renderers in *Java*, *Python*, *Numpy* and measured their performance;
- Achieved a 7x – 993x speedup compared to the *CPU*-based renderers by migrating to the *CUDA* architecture;
- Contributed to the *TornadoVM* computation project by reporting an issue and writing an installation guide for a specific platform.