Igor Chovpan

437-665-0196 | i.chovpan@mail.utoronto.ca | linkedin.com/in/chopikus | github.com/chopikus | chopikus.dev

Experience

Junior Software Developer (C++) July 2022 – July 2023

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

- Launched and improved *Azure Devops* backup coverage working with 3 teammates over the course of 12 months;
- Developed a file restore scheduling algorithm handling up to 10 million file dependencies;
- Optimized the *REST API* usage up to 99% in extreme cases by preventing the redownload of *Work Items*;
- Participated in refactoring the *C++* development & *Java* testing approach for 4 months, unifying *JSON* parsing.

Technical Skills

Languages: C++, Rust, Javascript, Java, Python

Other: Linux, REST API, bash, LaTeX

Education

University of Toronto Expected May 2027

Bachelor of Science, Computer Science Major, Mathematics Major, Coop student

Relevant coursework: CSC265 – **Enriched Data Structures and Analysis**.

Participating in a Computer Science Student Union mentor program, providing advice to first-year students.
Supporting the Ukrainian community outside of class.

Achievements

uoftctf 2024: top 80 out of 1225 teams participating in the University 'Capture The Flag' tournament;

IOI 2020: participated in qualifications between the national and international level;

Ukrainian Olympiad in Informatics 2021: top 1.5% of all participants, rank #28 nationally, won a bronze medal.

Projects

game-of-life | *Rust, JavaScript, Algorithms, Multithreading, WebAssembly*

- Implemented a modern web client for *Game of Life* mathematical simulation, ensuring memory safety and supporting multiple platforms;
- Exponentially optimized time usage by implementing *Hashlife* 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.

obsidian-advanced-canvas | *Open-source development, Hacking, Typescript*

- Researched open source projects helping to share notes from a reMarkable tablet on a personal computer;
- Implemented a plugin for *Obsidian* text editor with a screen sharing functionality to allow for more dynamic, engaging presentations.

raytracing-bench | *Java, Python, Object-Oriented Programming, Computer graphics*

- Measured performance of 3D sphere renderers in *Java*, *Python*, *Numpy* by implementing a path tracing algorithm;
- Achieved 7x – 993x speedup compared to the other implementations 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.