Igor Chovpan

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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

Relevant coursework: CSC265 - Enriched Data Structures and Analysis, CSC311 - Introduction to ML.

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

- Made a web client for a Game of Life mathematical simulation, rendering up to millions of generations per second;
- Exponentially optimized time usage by implementing *Hashlife* algorithm, running it on a separate thread;
- Shared technical details by writing an explanation blog and implementing integration tests.

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.

shorturl | Golang, JavaScript, Databases, Web development

- Made a website for sharing short URLs handling up to 1200 API requests per second;
- Published the app on the Google Cloud Compute Engine platform by creating a Linux systemd service.