Ioan Alexandru Popa

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EDUCATION

Politehnica University of Bucharest, **Bachelor in Computer Science** 📅 Oct 2022 - Jul 2026

- Relevant Coursework: Computer programming (**C** & **Python**; **Assembly**; **Rust**), Data structures and algorithms, Object-oriented programming (**Java**), Operating systems, Databases (Oracle **SQL**)
- **Cumulative grades**: 9.37/10

WORK EXPERIENCE

Nvidia 📍 Helsinki, Finland
Software Infrastructure Engineering Intern 📅 Jun 2025 - Sep 2025

- Reduced by **99**% the duration of action comparisons by implementing an **HTML** endpoint that compares 2 actions in an internal **Go** backend.
- Automated **4** steps of an OS image validation process using **Python** and **Bazel**.

PROJECTS

Personal dotfiles management system (GitHub link) 📅 Mar 2021 - Oct 2025

- Created a GitHub repository with configuration files for select programs, like `vim`, `zsh`, VSCode.
- Implemented **shell scripts** for **5** distro families that install a couple apps and configure a freshly installed **Linux** system with favourite configurations, and a **Windows** script that does this too.

ThemeChanger (GitHub link) 📅 Aug 2021 - May 2025

- Designed a Linux app in **Python** and **GTK3** that lets the user modify the mouse cursor, application icon, and widget themes and settings of **4** theme frameworks, even for unthemable libadwaita apps.
- Implemented live theme reloading using **6** desktop environment-specific mechanisms.
- Built a mechanism of showing instantly GTK3 theme and CSS changes in the app.

emscripten-functions (GitHub link) 📅 Aug 2023 - Mar 2025

- Implemented raw **Rust** bindings for **emscripten** system functions. Emscripten is a compiler toolchain that allows C & C++ code to be ran on web pages using **WASM**.
- Built Rust-friendly wrappers for **29** emscripten-specific functions.
- Over **9300** downloads on `crates.io` for the `emscripten-functions` crate (the Rust-friendly wrappers), and over **9700** for `emscripten-functions-sys` (the raw Rust bindings).

VOLUNTEER ACTIVITIES

Undergraduate teaching assistant, Assembly programming 📅 Feb 2024 - Jun 2024

- Held a weekly laboratory session for over **10** students that shows them the basics of **x86 Assembly**.
- Made a **Docker** image for lecture demos.

SKILLS

- **Intermediate**: C, C++, JavaScript, Linux & shell scripting, Python, Rust, TypeScript
- **Basic**: Bazel, CSS, C#, Docker, Emscripten, F#, Git, Go, Godot Engine, GTK3, HTML, Java, LaTeX, Lua, Matlab/Octave, Racket/Scheme, React, SQL, Svelte, x86 Assembly