Ioan Alexandru Popa

EDUCATION

Politehnica University of Bucharest, Bachelor in Computer Science

iii Oct 2022 - Jul 2026

- Relevant Coursework: Computer programming (C & Python; Assembly; Rust), Operating systems usage, Data structures and algorithms, Numerical methods (Octave), Object-oriented programming (Java), Operating systems, Programming paradigms, Algorithm design, Communication protocols
- Cumulative grades (1st year): 9.18/10

Projects

emscripten-functions (GitHub link)

t Aug 2023 - Oct 2023

- 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**. Emscripten is the easiest way of building Rust code for web that depends on C or C++ libraries.
- Built Rust-friendly wrappers for **29** emscripten-specific functions.
- Over **625** downloads on crates.io for the emscripten-functions crate (the Rust-friendly wrappers), and over **600** for emscripten-functions-sys (the raw Rust bindings).

MyRustRoguelike (GitHub link)

iii Jul 2022 - Nov 2022

- Built a simple roguelike game in **Rust**, where the player has to descend through the **26** levels of a procedurally generated dungeon while dodging various enemies.
- Designed a common back-end, used by 3 different front-ends: ncurses, SDL, and web using Yew.

ThemeChanger (GitHub link)

iii Aug 2021 - Jul 2022

- 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: GTK2, GTK3, GTK4, Kvantum.
- Implemented live theme reloading using 6 desktop environment-specific mechanisms.
- Built a mechanism of showing instantly GTK3 theme and CSS changes in the app.

OPEN SOURCE CONTRIBUTIONS

• Enhanced the tests suite of Lemmy and rust-vmm/kvm-ioctls.

iii Jan 2024

• Implemented the option to hide the "mentions" tab in the Tiny IRC client.

iii Jan 2023

• Fixed typos in OpenTTD and Unikraft.

m Mar 2022 - Oct 2023

• Added my ThemeChanger application to nixpkgs.

m Oct 2021 - Jul 2022

SKILLS

- Intermediate: C, C++, JavaScript, Linux & shell scripting, Python, Rust, TypeScript
- Basic: CSS, C#, Emscripten, F#, Git, Go, Godot Engine, GTK3, HTML, Java, I⁴TEX, Lua, Matlab/Octave, Racket/Scheme, React, SQL, Svelte, x86 Assembly

Volunteer activities

Rust workshop December 2023, CLI applications track

m Dec 2023

• Helped teach 29 students over a weekend the basics of Rust programming and CLI app development.