# Demian ilie

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#### PROFILE

My programming journey began at a young age with Python, where I first discovered the art of turning ideas into code. However, I soon found myself drawn to the precision and control of systems programming, falling deeply in love with Rust and C++. My greatest passion lies in low-level programming, where performance meets elegance and every optimization tells a story.

### VOLUNTEERING WORK

## •Backend and Frontend work at think up academy Cluj-Napoca

2023 - 2024

Working on their single page promotional site, and also on their e-learning platform

- Tools & technologies used: Python (flask), NextJs, MongoDb, WordPress
- I was tasked with making endpoints for the backend, and architectural choices for both the backend and the frontend
- It was also my first time having to clear deadlines and goals set by others.

## Member of the service club for youth Interact

2023 - 2025

Actively participated in and contributed to the organization of diverse club events and activities.

- Gained experience in teamwork, event management, and community engagement.
- Contributed to organizing various community events, including treasure hunts and themed parties.
- Assisted in the planning and execution of nationwide club initiatives.

#### ACHIEVEMENTS

•6th place, silver medal, and an endorsment from M.E.C. at the National Olimpiad of inovation	2024
and digital creation	
•12th place, Silver medal and an endorsmet from M.E.C. at the National c# olympiad	2025
•2nd place at Unihack international hackathon	2024

•18th place at the Acadnet national olympiad

2025

•54th place on pbinfo.ro:)

Present

### Personal Projects

Cross platform video game

•Mitz

February 2025 - Present

- Tools & technologies used: Kotlin, c#, GdScript, Rust Postgressql, Docker, dotnet entity framework
- Uses both native and platform independent code to provide an overlay that is always on the users screen no matter what application they use.
- Has A.I. integration, allowing your homescreen pet to talk to you in a customized manner

## designing + building one handed keyboard

2022

Designing from the ground up a one handed bluetooth keyboard

- Tools & technologies used: C, CMake, Python
- First exposure to embedded development C and low level programming
- Has 4 layers of functionalty that either activate the right or left side of the keyboard, and a bunch of other functions like moving a mouse cursor, left and right click, etc...

•pbinfo-cli 2024 - Present

cli program for phinfo.ro

- Tools & technologies used: Rust
- A cli program that, by reverse engineering the api of pbinfo.ro, can log the user in, upload solutions as the user, and lookup a multitude of other things

August 2024

declarative dependency manager for Windows in the style of nix

- Tools & technologies used: Rust, Scoop
- This was made for the 2025 edition of infoeducatie. Manages dependencies based on a .depy file that automatically adds dependencies to path. Also has a gui.
- Also contributed a few uses to scoop to fit my usecase.

•sala-management September 2024

 $automatic\ sms\ sending\ subscription\ app$ 

- Tools & technologies used: Flutter, Kotlin, MongoDb, Nodejs, Docker
- A client needed automatic sms sending to subscribers that have an expired subscription so i made a custom app that uses android AlarmManager to send sms messages to expired users

## TECHNICAL SKILLS AND INTERESTS

Most skilled in: Rust, modern C++, C#

Build systems: CMake and Make

Programmed / Some experience in: Kotlin, Java, Python, JS/TS, Dart, GdScript, nix, Haskell

Database: Postgressql and MongoDb Compartimentalisation: Docker, VirtualBox Mobile dev: Flutter / Dart, Native Kotlin

Scraping: scraper that ran as a SASS product in the cloud that scraped infromation from specific spotify users, circumventing many antiscraping measures (JS); A scraper that ran in the cloud for 3 months and scraped 3 Tb of data (Rust); A scraper that circumvented rate limiting on a public database and scraped over 3000 datapoints in under 3 hours, a job which should have taken a few months usually (Rust)

Google cloud platform and server administration: I have a personal home server and I also deployed many project to

GCP

Linux: I have been daily driving NixOs for aprox 2 years

Cyber security experience: reverse engineering asm and web apis

## **EDUCATION**

## •Mathematics and Informatics Profile

 $2022 ext{-}Present$ 

National High School "Emanuil Gojdu", Oradea

# LANGUAGES

English C1 Fluent

Romanian C2 Native