

Darius-Gabriel-Ioan Iuga

+40-771-051-269 | dariusiuga2@gmail.com | linkedin.com/in/darius-iuga | github.com/DariusIuga

EDUCATION

University Politehnica of Bucharest

Software Engineering Major

Bucharest, Romania

October 2022 – June 2026 (expected)

Mihai Viteazul National College

Baccalaureate

Bucharest, Romania

September 2017 – June 2022

Relevant Coursework: Operating Systems, Data Structures and Algorithms, Object Oriented Programming, Algorithm Analysis, Numerical Methods

PROJECTS

Simple Blog | *Python, Django, SQLite, Bootstrap CSS*

September 2023

- Built a highly-scalable multi page web blog hosted on a server written in the Python-based Django framework.
- Used an Object Relational Mapper to ease the development process by abstracting SQL tables as Python classes, simplifying the management of posts and users from the admin page.
- Designed the UI of the website in a modular fashion with styles from the Bootstrap CSS framework.

Indie platformer game | *Python, Pygame*

August 2023

- Created a platformer game in Python as a fun way to learn the Pygame library.
- Refactored the code using Object Oriented Programming principles to speed up the development of new game features.
- Improved performance by applying optimization techniques such as destroying objects that move off the screen, thus avoiding major memory leaks.
- Applied important game development practices like using sprites and the event loop.

Turing machine simulator | *C, Make*

January 2023

- Developed an API for simulating the execution of a Turing Machine in C, based on a doubly linked list
- Wrote undo and redo functions to manage the state of the linked list by using a queue and a stack

Image compression algorithm | *C, Make*

February - March 2023

- Implemented performant image compression and decompression algorithms in C using quadtree and heap data structures.
- Managed the input and output of the program by reading from a PPM binary file representing the image, processing the pixel matrix, and writing the compressed resulting image.
- Organized the codebase in a clean and extensible way by grouping the project in different files based on the task at hand and breaking down the logic in simple, reusable functions.

TECHNICAL SKILLS

Advanced: Git, C, Python, Django

Medium: Java, Javascript/Typescript, Node.js

Beginner: SQL, HTML, CSS, Matlab, Bash

PERSONAL SKILLS

Presentation abilities and planning skills aquired during a group project

Good time management and dilligence obtained by working on several college assignments simultaneously under time constraints