



Andrei-Constantin Mucioniu

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ABOUT ME

I'm a student at University of "Politehnica Timisoara", Faculty of Computer Science, without work experience in this field, in 3rd year of studies with the desire to learn and to see how the IT field is.

EDUCATION AND TRAINING

25/09/2022 – CURRENT Timisoara, Romania
BACHELOR IN COMPUTER SCIENCE Faculty of Computer Science, University "Politehnica" of Timișoara

15/09/2018 – 25/06/2022 Drobeta Turnu Severin, Romania
HIGH SCHOOL DEGREE Colegiul National "Gheorghe Titeica", Drobeta-Turnu Severin

LANGUAGE SKILLS

Mother tongue(s): **ROMANIAN**

Other language(s):

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
ENGLISH	B2	B2	B2	B2	B2
FRENCH	A2	A2	A2	A2	A2

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

C Programming | Python | C++ | SQL | Arduino | Linux | Java | Git | Verilog | JavaScript | HTML | Github | Algorithms & Data Structures | Basic knowledge in IP networks | CSS | Unity(Basics) | C# | OOP, Design Patterns, Multithreading in JAVA | Fundamental of Artificial Intelligence

PROJECTS

Food donation full-stack app

concepts used:

- React.js
- Express.js
- javascript
- MongoDB
- Full Stack
- Unit Testing

I did this project with a college colleague for a project on the fundamentals of software engineering. In creating this the application I used react for frontend, express.js for backend and mongoDB as database. We worked very well together and created a fully functional application as we had previously established in our use-stories. The project is on the GitHub account above.

Link <https://github.com/CristiL75/DonareMancare>

Mini versioning system

concepts used:

- C programming language
- parallel processes
- bash
- linux
- operating systems

for the subject of operating systems, I created this project, a mini versioning system that combines the basic concepts related to parallel processes and threads. These ideas have been used in the C programming language and I believe that I have reached a good level of understanding of these concepts of parallel processes. The project is on the GitHub account above.

Link <https://github.com/AndreiMuciu/Poiect-SO-versioning-system->

Random Quotes Generator

concepts used:

- javascript
- frontend
- 3rd party API
- HTML/CSS

Using a 3rd party API I took the data from it and used it to run it according to a category specified in the interface. Through this web project, I think I learned to use this type of APIs and to solve such problems. The project is on the GitHub account above.

Link <https://github.com/AndreiMuciu/Random-Quotes-Generator-using-3rd-party-api->

To-Do-List

concepts used:

- javascript
- frontend
- HTML/CSS
- OOP

I created this web project to test my skills in creating a front-end web project from scratch. I created the user-stories from scratch and then set the implementation of each feature in turn. For the realization of this project I used the javascript programming language. The project is on the GitHub account above.

Link <https://github.com/AndreiMuciu/to-do-list-web-front-end->

Epidemics Simulation

concepts used:

- C programming language
- Parallel threads
- POSIX threads

Developed a multi-threaded simulation in C to model the spread of an epidemic, transitioning from a sequential to a parallel implementation using POSIX Threads. Achieved a **3x speedup** over the sequential version by optimizing person-to-person interaction calculations and health status updates in each time frame. Responsibilities included designing logic for individual movement, contact detection between infected and susceptible individuals, and dynamic health status updates to create realistic epidemic dynamics. Full project available on GitHub.

*Update: I implemented a new parallel version based on OpenMP and I compare the 2 parallel versions.

Link <https://github.com/AndreiMuciu/empidemics-simulation-APD-project>

Create Internship Documents in C#

concepts used:

- C# programming language
- .NET programming
- Visual Studio

This project facilitates the management and automated generation of practice agreements for students. It is developed using C#, leveraging the DocX and CSVHelper libraries within Visual Studio. The main objective is to streamline the process of filling, storing, and generating documents related to practice agreements.

Link <https://github.com/AndreiMuciu/CreatingPracticalTrainingDocuments>

● **JAVA**

skills

During college I started working with the Java programming language, thus I came to understand the concepts of the language, but also those of object-oriented programming(OOP). I believe I have mastered the key objectives of this programming language.

● **DESIGN PATTERNS**

knowledge

Studied Design Patterns in university and applied them in various Java applications. Gained hands-on experience with patterns like Singleton, Factory, and Observer to improve code structure and maintainability.

● **TEST KNOWLEDGE**

Skills

During the faculty I learned the basic concepts about testing, as well as how important it is in the realization of a final project, being a key element for the most prolific result. I know what a black box or a white box is. I also had the opportunity to put these testing ideas into practice in a web development project done in college. I created a separate test unit where I tested each module separately. The project is available on gitHub. I wrote and executed these tests,

● **THE FUNDAMENTALS OF ARTIFICIAL INTELLIGENCE**

knowledge

During college I learned the basic concepts of artificial intelligence, and also how you can use it in your projects.

● **PYTHON KNOWLEDGE**

Skills

I learned the basic concepts of Python in college, delving deeper into recursive programming and concepts related to the foundations of artificial intelligence.

● **COMMUNICATION AND INTERPERSONAL SKILLS**

About myself

I like to work in a team, I consider myself a person who can understand and work with people, and I emphasize personal development as constantly as possible, so I try to become the best version of myself. I am very passionate about learning new skills and I dedicate my time to understand as well as possible what I want to do.

● **GITHUB**

Projects:

On Github I have some projects completed so far in college and outside of it, such as a simple web application using react, or a versioning system using several processes in parallel.

Link <https://github.com/AndreiMuciu>