europass

Mario-Cristian Constantinescu

Home : Romania

Email: constantinescu.mario_06_05@yahoo.com **Phone:** (+40) 729665059

Website: https://mario-cristian.github.io/portfolio/

LinkedIn: https://www.linkedin.com/in/mario-cristian-constantinescu-a97475245/

Gender: Male **Date of birth:** 06/05/2002 **Nationality:** Romanian

EDUCATION AND TRAINING

[10/2024 – Current] **Master's student**

Universitatea Ovidius, Facultatea Matematica si Informatica

City: Constanta | **Country:** Romania | **Field(s) of study:** Cyber Security and Machine Learning

[11/2024] **Unihack Hackathon Timișoara (48h)**

City: Timișoara | **Country:** Romania |

Link: https://mario-cristian.github.io/portfolio/

We participated as a team of 4 on the education track: Empowering Tomorrow's Minds with Innovative Education.

Our goal is to demonstrate that math can solve real-world problems, not just theoretical ones, and to show how math is used in machine learning using AI tools.

Our solution revolves around live, interactive experiments with a gamification element.

- Teachers can create lessons (AI-generated with optional edits) and attach experiments to them.
- Students can engage with interactive experiments that help them visualize concepts and solve problems.

Technologies used:

- Streamlit
- Flask
- MongoDB

[2021 – 2024] **Graduated in Computer Science**

Universitatea Ovidius, Facultatea Matematica si Informatica

City: Constanta | **Country:** Romania | | **Final grade:** 9.87

During 3 years at the university I built several projects and I learnt the following technologies/programming languages:

- C/C++
- Data structures
- Java (OOP, Swing, AWT)
- Python (Numerical methods)
- Machine learning
    - Linear Regression
    - Logistic Regression
    - K-Nearest Neighbor
    - Naive Bayes
    - Decision Tree
    - Random Forest
    - SVM
    - K-Means
    - Artificial Neural Network

        - Convolutional Neural Network
        - TensorFlow
    - Web Development
        - Frontend (HTML, CSS, JavaScript, jQuery, AJAX)
        - Backend (ASP.NET, Django)
    - Docker
    - Databases
        - Oracle
        - SQL Server
        - SQL, PL/SQL
    - Web graphic (Three.js)

[05/2024] **Estic 2024**

City: Constanta | **Country:** Romania |

I presented my final project: web application for students and teachers with physics simulations that can be controlled through gestures recognized by the camera.

For the frontend I used:

- HTML
- CSS
- JavaScript
- Bootstrap
- jQuery
- AJAX
- Web Sockets

For the backend I used:

- Django
- MediaPipe
- TensorFlow
- OpenCV
- Web Sockets

[04/2024] **iTEC Hackathon Timișoara (48h)**

City: Timișoara | **Country:** Romania |

- participated as a team of 3 members and we developed a web application that monitorizes the endpoints of other applications
- I was part of both the frontend and backend teams
- for the frontend we used HTML, CSS, jQuery, Bootstrap, AJAX
- for the backend we used ASP.NET, Dapper, stored procedures (PL/SQL)

[03/2024] **IT Fest Hackathon Timișoara (48h)**

City: Timișoara | **Country:** Romania |

- we participated as a team of 4 people and we developed a web application that had the aim to encourage a healthy lifestyle through workouts and nutrition
- I was part of the frontend team
- for the frontend we used Angular
- for the backend we used ASP.NET, Dapper, stored procedures (PL/SQL)

[12/2023] **BEST Brasov Hackathon (24h)**

BEST Brasov

City: Brasov | **Country:** Romania |

- we participated as a team of 3 members and we developed a web application where teachers could post their own courses and the students could access and learn from them
- I was part of the frontend team
- for the frontend we used Angular
- for the backend we used ASP.NET, Dapper, stored procedures (PL/SQL)

[10/2023] **Axes Hackathon (24h)**

Axes

City: Bucuresti | **Country:** Romania |

- we participated as a team of 4 people and we developed a web application for monitoring the electricity consumption and CO2 footprint of a person
- I was part of the frontend team
- for the frontend we used Angular
- for the backend we used ASP.NET, Dapper, stored procedures (PL/SQL)

[12/2022 – 07/2023] **Angular and C# ASP.NET practice**

Corner Stone Technologies

City: Constanta | **Country:** Romania |

[05/2023] **Estic 2023**

City: Constanta | **Country:** Romania |

I developed a web application for dating and I used the following technologies:

- for the frontend: Angular
- for the backend: ASP.NET

[07/2022] **Microsoft Azure practice**

[09/2017 – 06/2021] **High school graduate**

Liceul Teoretic "Carmen Sylva"

City: Eforie Sud | **Country:** Romania | | **Final grade:** 9.01

- Participation in math and informatics olympiads in the 9th and 10th grade (first phase)

PROJECTS

Generative AI / Natural Language Processing (NLP)

- Large Language Model (LLM) from scratch using character tokenization

Link: https://mario-cristian.github.io/portfolio/

Machine Learning (ML)

- Neural Network from scratch
- Gaussian Mixture Model (GMM) with Expectation-Maximization (EM) from scratch
- Linear Regression from scratch
- Logistic Regression from scratch
- Gaussian Naive Bayes from scratch
- Decision Tree from scratch
- Random Forest from scratch
- K-Nearest Neighbor with PCA - face recognition from scratch
- K-Means from scratch
- Search Engine from scratch

Link: https://mario-cristian.github.io/portfolio/

Geometry

Made with Java AWT.

- Point inside or outside a simple polygon
- Point inside or outside a convex polygon
- Point inside or outside PSLG
- Points inside a rectangle

Link: https://mario-cristian.github.io/portfolio/

LANGUAGE SKILLS

Mother tongue(s): Romanian

Other language(s):

English

LISTENING B2 **READING** B2 **WRITING** B2

SPOKEN PRODUCTION B2 **SPOKEN INTERACTION** B2

Spanish

LISTENING A2 **READING** A2 **WRITING** A2

SPOKEN PRODUCTION A2 **SPOKEN INTERACTION** A2

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

DRIVING LICENCE

Cars: B