



Mălina-Teodora DUMITRESCU

As a second-year Computer Science student, I am always seeking opportunities to expand my knowledge and skill set. With extensive volunteering experience, I am passionate about teamwork, problem-solving, and continuous learning. I thrive in multicultural environments, enjoy tackling challenges, and love using creativity to drive impactful projects.

Personal Projects

AI-Powered VPN Firewall

(In Progress)

2024 - present

- I am passionate about **AI, cybersecurity, and software development**, focusing on problem-solving, **system design**, and **network security** in agile environments.
- **AI-Powered VPN Firewall – A machine-learning firewall that detects VPN traffic and enforces security rules using Python, AI, and nftables. Features include traffic analysis, AI-driven detection, FastAPI backend, PostgreSQL logging, and a React dashboard.**

Java Ticket Sales Application

(Finished)

- Alongside a friend, I developed **TicketSalesCompany**, a **Java-based** event ticketing system, where I learned **OOP principles, SOLID design patterns, testing and GitHub collaboration**. This project helped me apply software architecture concepts and work with **multiple data storage methods (InMemory, File, Database with PostgreSQL & Hibernate, Spring and Frontend in progress)**.

Education

Babeş-Bolyai University

2023 - 2026

Faculty of Mathematics and Computer Science

Computer Science, German- language program

Highschool

National College "Elena Cuza", Craiova

Natural Sciences-German Bilingual Class

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https://malinadumitrescu.github.io/Portfolio_Site/

Soft skills

- Strong communication skills
- Good logical thinking
- Fast learning capacity
- Analytical and result-oriented thinking
- Eagerness to learn anything, at anytime
- Resilience and patience
- Flexibility and adaptability

Hard skills

English C1-C2

German C1

- Google Docs, Sheets, and Slides (Collaboration & Documentation)
- Microsoft Office Suite (Outlook, PowerPoint, Word, Excel, SharePoint)
- Git, GitHub, GitLab (Version Control & CI/CD)
- Figma, Canva (UI/UX Design & Prototyping)
- ChatGPT, Copilot (AI-assisted Development & Automation)
- Photoshop, Lightroom (Adobe)

Languages and Tools

I have worked with:

Programming Languages:

- Python
- Java
- C++
- C
- Shell
- PHP
- Assembly

Web Development:

- HTML , CSS
- React, JavaScript

Databases & SQL:

- SQL (Database Design & Normalization)
- PostgreSQL
- Microsoft SQL Server
- Azure Data Studio (MongoDB, MySQL)

Operating Systems & System

Administration:

- Linux (Ubuntu, general system administration)
- Windows

Networking & Cybersecurity:

- Cisco Packet Tracer (Network simulation & analysis)
- Firewall Management (nftables, Wireshark)

DevOps & Virtualization:

- Docker (Containerization & Deployment)
- VirtualBox (Virtual Machine Management)
- Git

Mathematical & Scientific Computing:

- SageMath (Data Visualization)

Software Development & UML Tools:

- MagicDraw (UML Modeling & Software Design)
- Scrum, Taiga (Agile concepts)

AI & Data Science:

- Pandas
- TensorFlow

Experience

Other Projects

- **CarSharingApp (C++, CSV)** – Team-based OOP project implementing a car-sharing system with **structured class hierarchies** and **design patterns**.
- **Restaurant Management App (Python, JSON, Pickle)** – Developed a restaurant ordering system, handling menu storage, order processing, and **JSON** data persistence.
- **Multiplayer Rock-Paper-Scissors Game (Python, PHP Threads)** – Implemented both multiplayer (**networked**) and single-player versions using **threading** and **client-server architecture**.
- **Portfolio Website (React, Vite, CSS, AOS)** – Personal web project built for internship applications, showcasing CVs, projects, skills, and contact info with **theme toggle, animations, and responsive design**.
- **Tic Tac Toe AI (React, JS, Q-Learning)** – Built a web-based Tic Tac Toe game with an **AI opponent trained via reinforcement learning (Q-Learning)**, featuring local score tracking and **responsive UI**.
- **IT Company DBMS (Java, Python, MySQL, PostgreSQL, Azure, Docker)** – Developed a **distributed DBMS** with MySQL and PostgreSQL on Azure/Docker. Built a Java CRUD app in IntelliJ, **handled concurrency** and distributed DBMS in Python (PyCharm), and **designed a GUI for user interaction using Swing**.

Department of Information Technology and Communication

Univeristy Intership

April - June 2024

During my 3-month **internship** at the **Department of Information Technology and Communication (DTIC)** at **UBB**, I worked with **both hardware and software components in networking**. Driven by curiosity and interest in this field, I gained hands-on experience in **network setup, troubleshooting, and infrastructure management**, expanding my understanding of IT systems beyond software development.

National Organization of Scouts

Volunteer

2019 - present

- Member of the **Romanian Contingent Management Team** for Roverway 2024, Norway (international event)
- **Initiator and Organizer** of a National Scouting Camps
- **Nocrich International Scout Center- volunteer**
- **Project coordinator, leading roles** in Human Resources (HR), **Logistics**, Image and Communication (**PR**), **Program Planning and Team Management** in various projects.

Gutenberg Studentenverein

Volunteer

2021 - 2023

- **President** of Gutenberg Jugendverein, Dolj branch-learning how to **manage an organization based on German language and German work ethics**.
- leadership, **teamwork**, solving conflicts, **critical thinking**, meeting deadlines, **organizational skills**.