

Maria Enescu

Computer Science and Engineering Student

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Education

Bachelor of Science in Computer Science and Engineering

Oct 2022 – Ongoing

University POLITEHNICA of Bucharest - Faculty of Automatic Control and Computer Science

- **Expected Graduation Date:** July 2026
- **Relevant Coursework:** Object-Oriented Programming (**Java**), Data Structures and Algorithms (**C**), Communication Protocols (**C**), Usage of Operating Systems (**Bash**), Computer Programming (**C**), Applied Informatics (**Python**, **HTML**, **CSS**), Introduction to Assembly (**ASM-x86-32bit**), Computer Graphics, Programming Paradigms (**Racket**, **Haskell**, **Prolog**)

Work Experience

Undergraduate Teaching Assistant

Oct 2024 – Ongoing

University POLITEHNICA of Bucharest

- Member of the OOP Performance Team, responsible for **guiding the development and enhancement of laboratory materials**, ensuring they align with course objectives and **facilitate an optimal hands-on learning experience** for students.
- Assisted in the **instruction of a classroom of 15 students**. In charge of leading the learning process, covering **OOP principles**, including **encapsulation** and **inheritance**, complex **design patterns (Visitor, Observer, Command)**, and intermediate **Java 17+**.
- Enhanced **mentoring, active listening**, and **teamwork skills** by engaging closely with students, understanding their needs, and fostering a collaborative learning environment.

Software Engineer Intern

Aug 2024 – Sep 2024

NetRom Software

- Developed a high-performance **full-stack Single Page Application** interfacing with APIs built on **.NET 8**. Employed **Entity Framework Core** for data handling and implemented both the **Repository** and **Unit of Work Patterns** to enhance **data management efficiency**.
- Leveraged **Angular** on the front end, utilizing **TypeScript**, **HTML**, and **SCSS** to develop dynamic and responsive user interfaces.
- Integrated **Active Directory** for robust **user authentication and authorization**, ensuring adherence to **security best practices**.
- Managed project dependencies through **NuGet** and collaborated effectively with the team to optimize version control processes using **SourceTree**.
- Enhanced database management utilizing **SQL Server Management Studio**, resulting in improved application performance and data consistency.

Relevant Projects

Web Client using REST API Communication in C

- **Project:** github.com/mariaenescu/web-client-rest-api-communication
- Developed a **RESTful API client** in **C** to handle user registration, authentication (login), and book management through **HTTP requests** from the **command line (GET, POST, PUT, DELETE)**.
- Integrated **token-based authorization** for secure and encrypted communication, ensuring data integrity and preventing unauthorized access.
- Utilized the **Parson library** for efficient **JSON parsing** and data handling, optimizing server-side interactions.

Global Wave Application in Java

- **Project:** github.com/mariaenescu/oop-project-streaming-app
- Developed a **media management system** in **Java**, similar to Spotify, with features for managing audio files and playlists, utilizing **JSON format** for data handling.
- Applied **OOP principles** and **Design Patterns** such as **Singleton**, **Builder**, and **Observer** to ensure flexibility.

Load Balancer in C

- **Project:** github.com/mariaenescu/load-balancer
- Implemented a **memory-optimized load balancer** in **C**, leveraging consistent hashing to improve workload distribution efficiency across servers by **40%**, leading to **reduced latency** and better resource utilization.
- Integrated a **hash ring** mechanism to enable seamless addition and removal of servers while maintaining high system performance.

Skills

Technical Skills:

Intermediate: **Java**, **C**
Beginner: **C#**, **C++**, **TypeScript**, **HTML**, **SCSS**, **Racket**, **Assembly x86 (32-bit)**, **MATLAB**
Technologies: **.NET**, **Angular**, **Linux**, **Git**

Soft Skills:

Problem-Solving, Teamwork, Creativity, Perseverance, Critical Thinking