Dear Recruiter,

I am a third-year student at the Technical University of Cluj-Napoca, majoring in Computer Science and Information Technology, and I would like to express my interest in IT opportunities. I am passionate about technology and eager to develop my knowledge and skills through practical projects and teamwork.

Among my most notable projects is the **Formula 1 Grand Prix Simulation (OpenGL)**. In this project, I developed a 3D Formula 1 circuit simulation featuring dynamic vehicle animation, real-time lighting, and environmental effects. The goal was to create an immersive and realistic racing experience, utilizing OpenGL to render complex graphical elements and simulate real-time interactions.

Another project that enhanced my technical skills is the **Polynomial Calculator (Java, Swing)** is a graphical calculator that supports arithmetic operations, regex-based input validation, and follows the MVC architecture. This project improved my understanding of Java GUI development and design patterns, particularly in structuring scalable and maintainable applications.

In addition, I developed a **Queue Management System (Java, Multithreading)**, a multithreaded system with real-time graphical updates, optimized queue allocation, and statistical tracking. The project focused on thread safety, synchronization, and efficient resource management, ensuring smooth handling of multiple concurrent requests.

Moreover, I worked on an **Order Management System (Java, MySQL)**, an application for warehouse management with CRUD operations and reflection-based database queries. This project strengthened my ability to work with databases, optimize queries, and implement a layered software architecture for better maintainability.

During my Database course, I collaborated with my colleagues to develop the **Medical Clinic Management System (MySQL, Java)**. This application involved building a database-driven system with stored procedures, triggers, and role-based access control. The system was designed to manage clinic operations securely and efficiently, allowing different users to interact with medical records according to their access privileges while ensuring data integrity and optimized performance.

To deepen my understanding of low-level programming, I designed a **Tic-Tac-Toe game (Assembly x86)** with a graphical interface. This project deepened my knowledge of assembly language, memory management, and hardware-level programming principles.

Furthermore, I contributed to **Efficient Sensor Data Processing (Arduino, Windows Forms .NET)**, where I implemented optimized Z-Score calculations for sensor data on

microcontrollers. The processed data was visualized through a .NET application, allowing real-time monitoring and analysis of sensor readings.

In addition, I have worked on various projects related to **Operating Systems**, including file system modules, process management, and inter-process communication mechanisms. These experiences have strengthened my understanding of system-level programming, resource allocation, and concurrency control.

Beyond my academic projects, I pursued certifications such as **CISCO IT Essentials: PC Hardware and Software** and **CISCO CCNA R&S: Routing and Switching Essentials**, where I learned fundamental concepts of hardware and networking, including system troubleshooting and infrastructure management.

Additionally, I had the privilege of participating in the **National Olympiad of Applied Informatics AcadNet** in 2021 and 2022 at the **Computers section**, where I reached the national stage. This experience allowed me to deepen my understanding of computer systems, networking, and applied informatics concepts.

I have experience with C/C++, Java, Python, C#, MySQL, and VHDL, along with expertise in algorithms, data structures, databases, and object-oriented programming. I am a motivated individual with strong problem-solving skills and the ability to adapt to various challenges.

I would be delighted to discuss further how I can contribute to your team. Thank you for your time, and I look forward to a potential collaboration.