MARIA-MAGDALENA CREȚ

Student

+40764763273

magdalenacret15@yahoo.com

Alba-Iulia, Alba

EDUCATION

Baccalaureate Diploma

Colegiul "Horea, Cloșca și Crișan"
Alba-Iulia, România
Profile: Mathematics-Informatics Intensive
2018 - 2022

Bachelor's Degree in Computer Science

Facultatea de Automatică și Calculatoare, Universitatea Tehnică din Cluj-Napoca, România
2022 - Present

HOBBIES

- Traveling
- Running
- Cycling
- Hiking
- Yoga
- Reading
- Interior design
- Prioritizing healthy eating and exercise habits
- Cooking
- Cultural Experiences

SOFT SKILLS

- Motivated
- Responsibility
- Creativity
- Critical Thinking
- Analytical Skills
- Good Listener and Communicator
- Social Skills
- Teamwork-oriented

LANGUAGE

Romanian – native

English

About Me

I am a motivated and ambitious student passionate about technology and continuous learning. I aim to apply my academic knowledge in real-world projects, improve my skills, and grow professionally. Organized, adaptable, and a fast learner, I am ready to contribute to team success.

PROJECTS

- **MIPS 16 Pipeline with Hazard Detection and Resolution (VHDL):** Developed a VHDL implementation of a 16-bit MIPS 5-stage pipelined processor with data/control hazard detection and resolution using techniques like forwarding, stalling, and branch handling.
- **MIPS 32 Pipeline Implementation (VHDL):** Designed and implemented a 32-bit MIPS processor in VHDL with all standard pipeline stages (IF, ID, EX, MEM, WB), including support for instruction execution and pipeline control.
- **Floating-Point Adder Pipeline Design and Implementation (VHDL):** Designed and implemented a three-stage pipelined floating-point adder in VHDL, following IEEE 754 single-precision format (32-bit).
- **Air Conditioning (Cooling) System Using Arduino (C):** The system continuously monitors ambient temperature and activates the fan when a set threshold (e.g. 25°C) is exceeded.
- **3D Scene Development Using OpenGL (C++):** Designed and developed an interactive 3D residential neighborhood scene using OpenGL, implementing various computer graphics techniques including shading, texturing, and lighting effects.
- **Polynomial Operations (Assembly x86):** The project involved efficient memory management and low-level operations for handling polynomial coefficients and performing operations on them. Bill objects.
- **Warehouse Order Management System (JAVA):** Developed a Java warehouse management system using layered architecture, relational database, and Swing GUI for complete order processing. Implemented CRUD operations with data validation, reflection techniques, and immutable Bill objects.
- **BlueSky Airline App | Android Mobile Application (Team Project - 3 members, collaborated via GitHub) :** Developed a flight booking mobile application that allowed users to search, book, and pay for airline tickets. The app featured role-based access control (RBAC) with different functionality for regular users and administrators.

To view other projects, please visit my GitHub profile:
https://github.com/MagdalenaCret

TECHNICAL SKILLS

- Assembly x86
- VHDL
- C
- C++ (including OpenGL)
- Java (including Android basics)
- Object-Oriented Programming
- Familiarity with Design Patterns
- JavaScript (basic)
- HTML
- CSS
- Python (basic)
- SQL (MySQL, PostgreSQL)
- Database Programming
- Fundamental Algorithms
- Fundamentals of Spring Framework (Spring Boot)
- PowerShell scripting fundamentals
- Basic Linux environment (Terminal Commands, Bash/Shell)
- Microsoft Office suite
- LaTeX (document preparation and formatting)

Mathematics:

- Linear Algebra
- Probability and Statistics
- Computational Mathematics