Perli Davide Andrea

IT

- 14 May 2004
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About me

My name is Perli Davide Andrea, I am 20 years old and I am a second-year student at the Faculty of Mathematics and Computer Science at the University of Bucharest. I am interested in web application development (full stack) and low-level programming, but also in other fields and I'm always open and interested in learning new skills.

Skills

Python

C/C++

PL/SQL

AT&T x86/GCC inline Assembly

HTML/CSS

(*)[The skill scale is from 0 (Fundamental Awareness) to 6 (Expert).]

Education

| since 2023 | Faculty of Mathematics and Computer Science. *University of Bucharest.* | Bucharest/Romania |
| 2019-2023 | "Gheorghe Șincai" National College *High School Diploma.* | Bucharest/Romania |

Projects

Pufic Store Web App
The app represents a store where customers can register, place orders, interact with a menu, receive automated emails, and generate invoices in PDF format, ban users that try to take over the app, warn me if someone tries to login with admin crediantials.

Icescream Shop
Implemented object-oriented programming concepts such as abstraction, polymorphism, inheritance, and encapsulation in a C++ program simulating the management of an ice cream shop.

Algorithms
Worked on algorithmic problems in C++, including Dijkstra's algorithm, Floyd-Warshall, and Bellman-Ford.

Automata Implementation
Modeled deterministic and nondeterministic finite automata, λ-automata, and a pushdown deterministic automaton in Python.

Conway's Game of Life
Implementation of the famous 0 player game in AT&T x86 Assembly

File Storage Simulation
Simulated file storage in a predefined continuous memory, implementing deletion, defragmentation, and address retrieval. This is meant to give a basic visual representation of how an operating system handles storage behind the scenes when we give normal commnads such as create/delete file/folder.

Current Projects

Terminal Simulator in C
Developing an application in C that simulates a terminal. It allows conversions between decimal, binary, and hexadecimal systems, performs calculations, and supports virtual file/directory creation without physical storage. The app also enables deleting these virtual files and directories. Inline assembly is integrated for performance optimizations.

Custom Programming Language (Python-based)
Developing a programming language inspired by Python, featuring a custom lexer, parser, compiler, and other necessary components. The language includes unique tokens and syntax designed for flexibility and ease of use.

Languages & Technologies

Languages: English, Italian, Romanian.
Operating Systems: Windows 10/11, Linux (Debian, Ubuntu, Kali Linux), FreeBSD.
IDEs: VSCode (preferred), JetBrains Suite (PyCharm, CLion, IntelliJ, etc.).