

# Durnea Maxim

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## Education

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**Politehnica University of Bucharest**  
*BS in Computer Engineering*

2023 - 2027

**Relevant Coursework:** Data Structures and Algorithms, Operating Systems, Numerical Methods, Linear Algebra, Object-Oriented Programming, Communication Protocols  
**Baccalaureate grade:** 9.25/10

## Projects

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### System Logs Anomaly Detector

[GitHub](#) [↗](#)

2024

Developed as part of the EESTEC OLYMPICS Hackathon, this project classifies Windows system logs to detect abnormal behavior.

- Created a PCAP to JSON Processor Script for data analysis.
- Collaborated on a neural network model using PyTorch.
- Achieved 90% accuracy, demonstrating effective preprocessing and machine learning.

### Parallel Firewall

[GitHub](#) [↗](#)

2024

Designed and implemented a multi-threaded firewall in C for real-time traffic filtering.

- Used pthreads for concurrent packet processing, reducing latency.
- Optimized detection algorithms for efficiency.

### Router Simulation Using Mininet

[GitHub](#) [↗](#)

2025

Simulated a router using Mininet, connecting 4 hosts and analyzing network traffic with Wireshark.

- Focused on packet forwarding and transmission.
- Gained insights into network performance and security.

### Assembly Code Repository

[GitHub](#) [↗](#)

2024

Contains various assembly projects, including algorithms like Quicksort and Binary Search.

## Extracurricular Activities

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- Participate in CTF challenges to improve cybersecurity skills.
- Actively engage in hackathons and problem-solving activities.
- Currently pursuing the Penetration Tester path on HackTheBox Academy.

## Skills

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### Programming Languages:

- Intermediate: Python, C, Java, C++, Racket, Assembly
- Beginner: Bash

### Tools:

Git – Experienced in version control and collaborative development.  
Burp Suite, Nmap – Used for penetration testing and network reconnaissance.  
Hydra – Utilized for buffer overflow exploitation.

**Operating Systems Knowledge:** Memory management, system calls, multithreading, and socket programming.

Knowledge in low-level programming and operating system internals.

**Operating Systems:** Proficient in using the Linux terminal for system administration and low-level programming.

**Languages:** English (C1), fluent in Romanian and Russian.