

# Vlad-Dumitru Omilescu

Timișoara, Romania

github.com/omilescuvlad 0746585038 [vlad.omilescu@gmail.com](mailto:vlad.omilescu@gmail.com)

## Education

### Polytechnic University of Timișoara

Timișoara / 2022-2025

Bachelor's degree in computer science

**Coursework:** Software Engineering, Object-Oriented Programming, Data Structures & Algorithms, Networking, Discrete Math, Linear Algebra, Probability & Statistics, Calculus

### Polytechnic University of Timișoara

Timișoara / July 2025-present

Master of Engineering - Information and Cybersecurity Systems

**Coursework:** Modern Cryptographic Techniques, Network & Computer Security, Web Application Security, Cloud Security, Mobile Application Security, Virology & System Vulnerabilities, Security of Industrial & Embedded Systems, Cybersecurity Standards & Methodologies, Ethics and Academic Integrity

## Skills

**Languages:** C/C++, Python, HTML/CSS, SQL/MySQL, GML

**Tools:** Git/GitHub, Linux, React, Next.js, VS Code

## Certifications

### CERTIFICATE OF PROFESSIONAL IT COMPETENCES

- Design and structure of software products necessary for the implementation of software systems, software applications, databases, web pages (customer-oriented software).
- Customization, configuration and modification of software applications, in order to adapt to the client's information systems.

### IC3-GS5 Digital Literacy Certification | Advanced User

- Key Applications: Leveraging advanced features of Microsoft Office Suite (Word, Excel, PowerPoint) to create professional documents, complex data analysis, and dynamic presentations, enhancing productivity and communication.
- Living Online: Utilizing digital collaboration tools and online communication platforms effectively, while implementing best practices for cybersecurity, ethical conduct, and information literacy in a professional environment.
- Computer Fundamentals: Demonstrating comprehensive knowledge of hardware, software, and operating system management to troubleshoot common issues, optimize system performance, and manage data efficiently.

### CCNA: Introduction to Networks

- Network Fundamentals: Architecting and implementing essential local area networks (LANs), including configuring routers and switches to provide network connectivity.
- IP Connectivity: Applying IPv4 and IPv6 addressing schemes and subnetting to build scalable and efficient network infrastructures.
- Network Operations: Utilizing critical network administration protocols like DNS, DHCP, and NAT to manage and maintain available network services.

## Projects

### Network mission | GameMaker, GML, C, OpenSSL

- Developed a 2D educational puzzle-adventure RPG to teach core cryptography concepts through engaging gameplay, integrating RSA asymmetric encryption, hashing with SHA-256, and password salting.
- Engineered two native C extensions using the OpenSSL library to simulate a real terminal; one extension handles RSA key generation/encryption/decryption, while the other performs secure hashing and salting, providing players with an authentic cryptographic testing environment.
- Programmed core game systems, including a dynamic dialogue interface and a turn-based battle system where puzzles replace traditional combat, directly incorporating the terminal simulations for gameplay progression.

### Automated File System Organizer | Python

- Engineered a Python script to automate the organization of cluttered directories by sorting files into folders based on their extension, significantly improving digital workflow and file management efficiency.
- Implemented robust error handling to verify path existence and skip directories, ensuring reliable execution. Utilized the OS library for path operations and cross-platform compatibility and the Shutil library for efficient file moving operations.
- Designed for ease of use with a clear function call, making it a versatile tool for recurring cleanup tasks on any system with a Python interpreter.

### Interactive Web-Based Curriculum Vitae | React, JavaScript, HTML/CSS

- Developed a dynamic and responsive single-page application (SPA) to serve as a professional digital curriculum vitae, providing an interactive alternative to traditional static PDF documents.

- Engineered with React to create a modular and maintainable component structure, ensuring easy content updates and a seamless user experience with fast rendering.
- Designed and implemented a modern, clean UI with custom CSS styling for full responsiveness, guaranteeing optimal viewing across mobile, tablet, and desktop devices.

## Extracurriculars

---

### Autonomous Technical Skill Development | Self-Directed Learner

*Ongoing*

- Continuously enhancing algorithmic problem-solving proficiency through competitive coding platforms (LeetCode); expanding cybersecurity expertise through practical penetration testing challenges; and acquiring new programming languages to tackle diverse software projects.