



# Cristian Lupascu

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**Date of birth:** 05/03/1992 | **Nationality:** Romanian | **Gender:** Male | (+40) 740491983 |

[clupascu8@gmail.com](mailto:clupascu8@gmail.com) |

Splaiul Independetei Nr. 202H, District 6, 060021, Bucharest, Romania

## ● WORK EXPERIENCE

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10/08/2015 – CURRENT

**SECURITY SOLUTIONS ARCHITECT – CERTSIGN**

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- Team leader in software engineering projects and national research project responsible from partner
- Designed and developed an eIDAS and Common Criteria EAL4+ software solution for remote digital signature
- Design and development other systems and software applications such as smartcard personalization solutions, OCSP responder, certification authority
- Integration of security devices for application requiring cryptographic processing (such as Hardware Security Modules, eTokens, virtual HSMs)
- Application development on smart cards

Bucharest, Romania

01/08/2015

**ENGINEER – AGENCY FOR MILITARY SYSTEMS AND INFORMATION SERVICES, MOD**

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Software engineering in the field of national defense.

Bucharest, Romania

01/02/2017 – CURRENT

**ENGINEER – COE FOR ADVANCED CYBER SECURITY TECHNOLOGIES, MILITARY TECHNICAL ACADEMY, MOD**

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- National research security specialist from MTA partner
- Research, design and software engineering of defence cybersecurity modules
- Teaching cryptography, cybersecurity, forensics and malware analysis for different defense structures in Romania and Europe (including CEPOL)
- Participated in national and international cybersecurity exercises such as Cyber Coalition (NATO), Cyber Europe (ENISA), CyDEX (Romanian Intelligence Service), etc.

Bucharest, Romania

10/01/2017 – CURRENT

**ASSOCIATE TEACHER – MILITARY TECHNICAL ACADEMY, MOD**

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Teaching (laboratories) to bachelor students on the following topics:

- Cryptography
- Object - Oriented Programming (OOP)

## ● EDUCATION AND TRAINING

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01/10/2011 – 20/07/2015 – Bucharest, Romania

**B.E. IN COMPUTER ENGINEERING – Military Technical Academy**

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- Information security
- Cryptography
- Operating Systems
- Software engineering

Nivelul 6 CEC

- Electronic signatures and PKI
- Security protocols
- Electronic payment security
- Database, multimedia and network security
- Biometric systems
- Forensics in computer crime
- Cyber warfare

EQF level 7

Security of encrypted data processing in cloud using cryptographic mechanisms

EQF level 8

## ● LANGUAGE SKILLS

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**Mother tongue(s):** ROMANIAN

**Other language(s):**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>FRENCH</b>	A1	A1	A1	A1	A1
<b>ENGLISH</b>	C1	C1	C1	C1	C1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

## ● PUBLICATIONS

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### Publications

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- Homomorphic Evaluation of SPECK Cipher, Sept. 2015, PROCEEDINGS OF THE ROMANIAN ACADEMY, Series A, Vol 16, Special Issue 2015
- Homomorphic Encryption Based on Group Algebras and Goldwasser-Micali Scheme, Oct. 2016, Innovative Security Solutions for Information Technology and Communications, Springer
- Signing Electronic Documents, Encrypting Data and Managing Cryptographic Objects in a Secure Environment, Dec. 2016, MTA Review
- Programming Techniques, 2017, ISBN: 978-973-640-239-5, Military Technical Academy
- Laboratory Guidance in Cryptography, ISBN: 978-973-640-277-7, Military Technical Academy
- SGX-based Cloud Security Module with User's Sole Control, Jun. 2016, Communications 2018 Conference, Bucharest
- Acceleration techniques for fully-homomorphic encryption schemes, CSCS22: The 22nd International Conference on Control Systems and Computer Science, 2019
- On GPU Implementations of Encryption Algorithms, Journal of Military Technology, 2019
- DLT Based Authentication Framework for Industrial IoT Device, Sensors 2020, Volume 20, Issue 9, 2621
- Privacy Preserving Morphological Operations for Digital Images, The 13th International Conference on Communications, COMM2020

## ● CONFERENCES AND SEMINARS

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2019 – Bucharest, Romania

**Novel Actionable Information - Learn to find, learn to use digital data, Train the Trainer seminar**

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Trainer, organised under the umbrella of CEPOL - no. 80/2019

Military Technical Academy "Ferdinand I", Bucharest, Romania  
**Digital forensics on mobile devices**

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Trainer on Digital forensics on iOS mobile devices.

Military Technical Academy "Ferdinand I", Bucharest, Romania  
**Digital forensic - basics**

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Trainer on Digital forensics using UFED.

Military Technical Academy "Ferdinand I", Bucharest, Romania  
**Windows Forensics**

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Trainer on Dynamic Malware Analysis

Military Technical Academy "Ferdinand I", Bucharest, Romania  
**Cyber Security Essentials**

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Trainer on Modern Cryptographic Technologies.

27/04/2020 – 01/05/2020 – Online - Simons Institute for the Theory of Computing  
**Workshop: Lattices: Algorithms, Complexity, and Cryptography**

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Workshop attendee.

## ● **ORGANISATIONAL SKILLS**

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### **Organisational skills**

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Decision-making and coordination skills.  
Capacity to analyze tasks and divide into responsibilities.

## ● **COMMUNICATION AND INTERPERSONAL SKILLS**

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### **Communication and interpersonal skills**

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Good communication skills gained through teaching experience.  
Ability to adapt to multicultural environments and to work in multi-language teams.

## ● **JOB-RELATED SKILLS**

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### **Job-related skills**

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Good knowledge and extensive hand-on experience in the following technologies:

- Programming languages : C, C++, C#, Java
- TCP/IP networks
- Operating systems : MS Windows, Linux
- Cryptographic mechanisms, data encryption and digital signatures
- Public key infrastructures
- Computer network information security
- Operating systems security
- Design and development for security software applications
- Smartcards and HSM systems security

## ● **CERTIFICATIONS**

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### **Certifications**

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- Cisco Certified Network Associate Routing & Switching : CCNA1, CCNA2, CCNA3
- VMware vSphere: Install, Configure, Manage [6.5]
- Common Security and defence policy, Carol I National Defense University
- Conflict management and negotiation, Carol I National Defense University
- Introduction to NATO, Carol I National Defense University
- Law of armed conflict, Carol I National Defense University