



# Maria-Mădălina Andronache


**Date of birth:** 09/08/1995

**Place of birth:** Piatra Neamț

**Nationality:** Romanian

**Sex:** Female

## CONTACT

 Bucharest

Romania (**Home**)

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europass

## WORK EXPERIENCE

### Networks engineer

2019 – Current

Designing and implementing functional network infrastructure  
Ensure network security and data protection  
Network hardware configuration  
Network troubleshooting  
Monitoring network usage

Bucharest, Romania

### Research assistant in the field of IT&C - CAMPUS Research Institute

01/11/2018 – Current

Research and development of agent cooperation scenarios and software modules for agent cooperation;  
Production of technical documentation and dissemination activities;  
Literature review;  
Conducting analyses of datasets and research experiments

Iași, Romania

### Intern - SC Continental Automotive Romania SRL

06/2017 – 09/2017

Creating and reviewing a schematic design, choosing the right layer for PCBs, choosing the appropriate footprints for all electronic components in the design. Performing component placement by respecting specific design constraints and creating PCB routing according to specific design requirements.

Piatra Neamț, Romania

### Intern - SC Telekom Romania Mobile Communications S.A.

07/2016 – 09/2016

Selling telecommunications services of Telekom (mainly mobile telephony);  
Improving sales skills;

## EDUCATION AND TRAINING

**2020 – CURRENT** Bucharest, Romania

### PhD Studies National University of Science and Technology POLITEHNICA Bucharest

Doctoral School of Electronics, Telecommunications & Information Technology – National University of Science and Technology POLITEHNICA Bucharest

Thesis title: "Traffic analysis techniques in computer networks"

Advisor: Corneliu Burileanu

**Level in EQF** EQF level 8

**2018 – 2020** Bucharest, Romania

### Master's degree - Mobile Communications Faculty of Electronics, Telecommunications and Information Technology

Faculty of Electronics, Telecommunications and Information Technology, National University of Science and Technology POLITEHNICA Bucharest

Thesis title: "Intelligent assistance system for people with hearing and speech impairments"

Advisor: Corneliu Burileanu

**Level in EQF** EQF level 7

**2014 – 2018** București, Romania

**Engineer degree - Telecommunications Technologies and Systems** Faculty of Electronics, Telecommunications and Information Technology

Faculty of Electronics, Telecommunications and Information Technology, National University of Science and Technology POLITEHNICA Bucharest

Specialization: Telecommunication Systems (TST)

Thesis title: "Integrated system applicable to an intelligent vehicle"

Advisor: Corneliu Burileanu

**Level in EQF** EQF level 6

**2010 – 2014** Piatra Neamț, Romania

**Romanian Baccalaureate - Mathematics – Computer Science Profile, Intensive English teaching** Calistrat Hogaș National College

**Level in EQF** EQF level 5

**11/03/2019 – CURRENT** București, Romania

**Cisco Exploration CCNA 4 Certificate** Telecom Academy

CCNA Routing and Switching: Connecting Networks

Professional skills acquired: Point-to-Point Networks, Network Security and Monitoring, Remote Access and Site-to-Site VPNs, QoS

**09/01/2018 – 29/06/2018** București, Romania

**Cisco Exploration CCNA 3 Certificate** Telecom Academy

CCNA Routing and Switching: Scaling Networks

Professional skills acquired: LAN Design, STP, Etherchannel and HSRP, Dynamic Routing, EIGRP, OSPF

**01/08/2017 – 17/02/2018** București, Romania

**Cisco Exploration CCNA 2 Certificate** Telecom Academy

CCNA Routing and Switching: Routing and Switching Essentials

Professional skills acquired: Static and dynamic routing concepts, switch configuration, VLANs, ACLs, DHCP, NAT for IPv4.

**19/12/2016 – 20/06/2017** București, Romania

**Cisco Exploration CCNA 1 Certificate** Telecom Academy

CCNA Routing and Switching: Introduction to Networks

Professional skills acquired: LAN, WAN, Internet, communication rules, network protocols and standards, configuring a Cisco router, IPv4 network subnetting

**28/02/2019 – 30/07/2019** București, Romania

**Java 1 Associate** Telecom Academy

Professional skills acquired: decisional and repetitive control structures, the concept of object, instances, classes, attributes, behaviors, constructor, dereferencing, inheritance and polymorphism, checked exceptions vs runtime exceptions, exception propagation and handling, Thread class, Runnable interface, run method.

**20/09/2019 – CURRENT**

**Linux Essentials** Netacad

Professional skills: fundamental elements of using and administering the Linux operating system

**20/09/2019 – CURRENT**

**Python Essentials** Netacad

Professional skills: Syntax, semantics, programming and debugging

05/05/2019 – 06/08/2019

## Introduction în Cybersecurity and Cybersecurity Essentials Netacad

Professional skills acquired: Global implications of cyber threats, the impact of cyber attacks on industries, Cisco's approach to threat detection and defense

## LANGUAGE SKILLS

### Other language(s):

English

Listening B2

Spoken production B2

Reading B2

Spoken interaction B2

Writing B2

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

## DRIVING LICENCE

Driving Licence: AM

Driving Licence: B1

Driving Licence: B

## SKILLS

### Competencies acquired at the workplace

Social skills and teamwork, attention to detail, ability to respect commitments and efficiently organize time and activities.

### Organizational skills

Ability to make decisions in difficult situations, organizational and activity coordination skills and abilities, seriousness and perseverance.

### Technical skills

Programming, operating equipment, experimenting, testing, product developing, quality controlling, repairing

## PUBLICATIONS

### Publications

1. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, The Impact of Malware Attacks on the Performance of Various Operating Systems in International Journal of Advanced Computer Science and Applications(IJACSA), 15(12), Dec 2024, DOI: 10.14569/IJACSA.2024.0151257, ISI Q3, WOS:001394195600001
2. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, A Comparative Study of Intrusion Events in Different SIEM Systems, in Proceedings of the 2025 IEEE 23rd World Symposium on Applied Machine Intelligence and Informatics (SAMI), Stará Lesná, Slovakia, 2025, pp. 65-70, IEEE, DOI: 10.1109/SAMI63904.2025.10883178.
3. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, Analyzing Network Anomalies Using Wazuh SIEM, Proceedings of the International Conferences on Applied Computing 2024 and WWW/Internet 2024, ICWI 2024, 26-28 October 2024, pp 381-385, ISBN (Book): 978-989-8704-62-7, Scopus.
4. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, A Malware Study using Static and Dynamic Analysis, Proceedings of the 2024 15th International Conference on Communications (COMM), Bucharest, Romania, 2024, pp. 1-6, IEEE, DOI: 10.1109/COMM62355.2024.10741424.
5. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, Performance Comparison of Malware Classification Algorithms using WEKA Tool, Proceedings of the 2024 16th International Conference on Electronics, Computers and Artificial Intelligence (ECAI), Iasi, Romania, 2024, pp. 1-6, IEEE, DOI: 10.1109/ECAI61503.2024.10607476.

6. Maria-Mădălina Andronache, Alexandru Vulpe, Experimental Analysis of Network Traffic Databases for Anomaly Detection, Proceedings of the 2023 International Conference on Speech Technology and Human-Computer Dialogue (SpeD), Bucharest, Romania, 2023, pp. 122-127, IEEE, DOI: 10.1109/SpeD59241.2023.10314928.
7. Maria-Mădălina Andronache, Intrusive application detection using Weka classifiers, Proceedings of 2023 Doctoral Symposium on Electronics, Telecommunications, and Information Technology (SD-ETTI 2023), available at [https://www.sdetti.upb.ro/documents/SD\\_ETTI2023\\_Program\\_Guide.pdf](https://www.sdetti.upb.ro/documents/SD_ETTI2023_Program_Guide.pdf)
8. Maria-Mădălina Andronache, Octavian Fratu, "CYBERSECURITYIS A WAY OF LIFE", International Scientific Conference "Strategies XXI"; Bucharest, Iss. 2, (2019), Available online at: <https://search.proquest.com/openview/c63f63ff2bcc29cb9c23671b0185dfc2/1?pq-origsite=gscholar&cbl=2026346>
9. O. Fratu, M. Berceanu, I. A. Gudovan, M. Andronache, "Communication Optimization for multiple UAVS/USVS"; presented in workshop AFASES 2019
10. Octavian Fratu, Maria-Mădălina Andronache, Ana-Maria Drăgulinescu, Carmen Voicu, Alexandru Vulpe, "Cooperation scenarios in multi-agent water monitoring platform", Periodicals of Engineering and Natural Sciences, Vol. 7, No. 2, June 2019, pp.10-13, Available online at: <http://pen.ius.edu.ba/index.php/pen> (BDI, Open Access)
11. I. Marcu, C. Voicu, A.M.D. Drăgulinescu, O. Fratu, G. Suci, C. Bălăceanu, M.M Andronache, "Overview of IoT basic platforms for precision agriculture", presented in Fabulous conference March 2019, Poulkov V. (eds) Future Access Enablers for Ubiquitous and Intelligent Infrastructures. FABULOUS 2019. Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering, vol 283. Springer, Cham, ISI, WOS: 000552334400013.

List of articles in progress of publication and preparation:

12. Maria-Mădălina Andronache, Alexandru Vulpe and Corneliu Burileanu, Strategic Management and Oversight of Security Events in a Business Organization in University POLITEHNICA of Bucharest Scientific Bulletin Series C - Electrical Engineering and Computer Science