



Antonio-Dan Macovei

Cyber Security & Web enthusiast, studying Security and Network Engineering.

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Education

University of Amsterdam, Graduate School of Informatics

Amsterdam, Netherlands

M.S. IN SECURITY AND NETWORK ENGINEERING

Sep. 2021 - Jul. 2022

- Courses: Advanced Security, Advanced Networking, Offensive Technologies, CyberCrime and Forensics

Politehnica University of Bucharest, Faculty of Automatic Control and Computer Science

Bucharest, Romania

B.S. IN COMPUTER SCIENCE AND ENGINEERING

Sep. 2017 - Jul. 2021

- Courses: Communication Protocols, Local Area Networks, Network Design, Operating Systems, Security Assessment of Computer Systems, Parallel and Distributed Algorithms

Work Experience

Synack Red Team

Remote

SECURITY RESEARCHER (BUG BOUNTY)

Dec. 2021 - Present

BIT SENTINEL

Bucharest, Romania

PENETRATION TESTER

May. 2021 - Present

- Perform **manual penetration testing** and **security assessments** on networks, web-based applications, and computer systems.
- Document findings, write security reports, and discuss solutions with the IT teams and the managers. Provide feedback and verification after security fixes.
- **Develop new scripts and tools** in Python to automate time-consuming processes. Created a program to identify chatter about new CVEs on social media and raise alerts on hot topics.
- **Propose and implement** challenging security exercises for CTF competitions such as DefCamp DCTF and Unbreakable Romania.

Invictus Incident Response

Amsterdam, Netherlands

SECURITY RESEARCHER

Jan. 2022 - Feb. 2022

- Conducting a research project in collaboration with University of Amsterdam on the theme of **"Automated Incident Response in the Cloud: An Environment Agnostic Solution in AWS"**, with a focus on the first two steps of the NIST IR Life Cycle.

SecureWorks Europe

Bucharest, Romania

INFORMATION SECURITY ANALYST

Jun. 2020 - May. 2021

- Investigated and documented high level threats, determined the extent to which client assets have been compromised, made recommendations for remediation and assisted in their implementation.
- Performed analysis of security events from multiple sources including but not limited to events from **SIEM tools (Splunk, CTP)**, **EDR (CarbonBlack, RedCloak, CrowdStrike Falcon)**, network and host based IDS, firewall logs, system logs (**Unix & Windows**).
- Assisted in the remediation of a **major incident** and helped restoring the business processes **10% faster than usual** due to my investigative efforts.

SSS - Security Summer School (Politehnica University of Bucharest)

Bucharest, Romania

WEB SECURITY TEAM COORDINATOR

Sep. 2020 - Jul. 2021

- Lead a team of **10 people** through the preparation of content and challenges for the next edition of the summer school.
- Restructured the course content to train students on vulnerabilities resembling real-life situations, offering an overview of the entire attack process, from **reconnaissance** to **initial foothold** and **full system compromise**.

VOLUNTEER

May. 2020 - Jul. 2020

- Taught students **Web Security concepts** in multiple 4 hours sessions, ranging from basic web knowledge to advanced attacks.
- Developed content and challenges for Web Security classes.

Politehnica University of Bucharest

Bucharest, Romania

UNDERGRADUATE TEACHING ASSISTANT

Sep. 2018 - Present

- Created and graded tests for **over 150 students** attending the Introduction to Assembly Language and Computer Organization Course.
- Graded homework assignments written in C and ASM x86.
- Conducted **oral examinations** with second year students, assessing their knowledge on the subject at the end of the semester.

Nordic Import-Export CO

Bucharest, Romania

IT TRAINEE

Dec. 2017 - Jan. 2019

- Created a web app for the HR department to better organize their files and records more efficiently by automatically generating prefilled forms.
- Improved the efficiency of the department by removing repetitive tasks, such as manually filling forms for sick leave, resignations and certificates, **saving 5 hours per week**.

B-Zone Community (Gaming Community)

Remote, Romania

WEB DEVELOPER

Dec. 2015 - Oct. 2018

- Designed and implemented important features of the game servers websites, such as account recovery, surveys and unban requests system.
- Enabled **thousands of users** to access their data with ease and perform daily actions from their browser (e.g. view detailed statistics, report players, vote new leaders and rules, etc.)
- **Improved page response time by 75%** by optimizing SQL queries and data structures.
- Worked with Symfony PHP Framework and Doctrine ORM to develop core functionalities, while leveraging MySQL to query a large database.

Personal Projects

NUTSEC Platform

2021

- Online platform designed to **automate the process of generating environments for security challenges**, based on simple configuration files.
- Created a set of agents, allowing for easier deployment, directly on users' hosts and managed from the online interface.

Personal Blog

2020

- Designed a personal blog focused on **offensive security**, featuring write-ups and walkthroughs from **CTF competitions and hacking challenges** (such as **HackTheBox**, **European Cyber Security Challenge**, etc.).
- Documented a broad set of vulnerabilities and attacks discovered in applications, oriented towards knowledge-sharing.

<https://antoniomacovei.com/blog>, [HackTheBox Profile](#)

Josi Online Shop

2020

- Created an online grocery store from scratch, helping a business in the food service area handle the pandemic by moving their operations online and enabling people to order base aliments directly at their homes.
- Built the web platform using the Laravel Framework, **supporting hundreds of daily users** and orders.

<https://comenzi-josi.ro/>

Topic Messaging Application

2019

- Developed a **C application focused on networking** which allows users to subscribe to channels of interest using TCP connections while important messages are broadcasted by UDP clients. Offline messages are stored for later retrieval.

[GitHub](#)

Miva Delivery

2017

- Designed a web platform which enabled a local restaurant to expand their business in the online environment, **allowing tens of daily customers** to order food from their browsers.
- Implemented all back-end functionalities from scratch, such as checkout, products cart, account settings, administration panel, etc.

<http://mivadelivery.ro>

Achievements

- 2021 **4th Place**, RoCSC - Romanian Cyber Security Challenge, Seniors
- 2021 **1st Place**, RST CTF - Romanian Security Team
- 2021 **2nd Place**, IsolationCon 2 CTF
- 2021 **3rd and 5th Place**, Unbreakable Romania CTFs (Individual and Team Competition)
- 2020 **9th Place**, DefCamp CTF (International, over 400 teams)
- 2020 **Participant**, Cydex20 - National CyberSecurity Exercise
- 2020 **11th Place**, RoCSC - Romanian Cyber Security Challenge, Seniors
- 2020 **13th Place**, ECSC - European Cyber Security Challenge, Romanian National Phase, Seniors
- 2016 **1st Place**, EmpowerSoft - Web Development Section
- 2016 **3rd Place**, EmpowerSoft - Mobile App Development Section
- 2016 **3rd Place**, Microsoft IoT Hackathon
- 2015 **2nd Place**, STEM Innovation Challenge

Certifications

Aug. 2020 **Security+**, CompTIA

May. 2019 **Applied Web Application Security**, Metropolia University of Applied Sciences, Finland

Feb. 2017 **Advanced English - Level C1**, Cambridge English (CAE)

Organizations

ROSEdu - Romanian Open Source Organization

VOLUNTEER

Sep. 2018 - Present

- Organized events for students, such as Linux Install Fest, Coding Competitions, etc.

LSAC - Students League of Automatic Control and Computer Science

VOLUNTEER, IT DEPARTMENT

Oct. 2017 - Jun. 2019

- Led a team of **5 people** towards the successful implementation of MOFT (Museums, Opera, Films, Theaters) cultural event.
- Built a website for the students who wished to acquire tickets to the cultural events promoted during MOFT.