

Marco Urbano

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WORK EXPERIENCE

IT/OT Cybersecurity Engineer

Nov. 2022 – currently

ENEL S.p.A.

Napoli, IT

- **Designing and updating cybersecurity guidelines** taking into account international standards (e.g. NIST, NERC, OWASP) to secure applications and infrastructures.
- Responsible to guarantee cybersecurity measures for **ENEL FIBRA**, the first company **ISP** service.
- Analyzing solutions (architecture/applicative) before the production phase to **check security posture** before the release.
- **Scouting** cybersecurity solutions in order to integrate them within company perimeter.
- Evaluating suppliers solutions to ensure that they implement state-of-the-art cybersecurity measures.
- Supporting the team by providing the **penetration tester's point of view** within the analysis of everyday cybersecurity problems.

Penetration Tester

Aug. 2022 – Oct. 2022

Ericsson Telecomunicazioni S.p.A.

Pagani, IT

- I'm part of the **Cybersecurity Red Team** in Ericsson Pagani R&D.

Software Engineer

Oct. 2021 – Aug. 2022

Ericsson Telecomunicazioni S.p.A.

Pagani, IT

- Introducing new features to Ericsson products in order to reach the **State of The Art in 5G technology**.
- **Code refactoring** to improve existing codebase in terms of readability, reusability and complexity (time/space).
- Contributing to the **trasformation of the code from monolithic to microservices (Docker)**.
- Performing VA/PT to ensure **Product Security** before GA.
- Adopting **Secure Coding** to ensure "Defence in Depth". (C, C++, Java, Python, bash)
- Performing **Risk Assessment** and **Privacy Impact Assessment** to ensure that new features do not introduce unacceptable risks and that they are compliant to Ericsson security and privacy standards. (**STRIDE**)
- Using **AGILE methodology** within a team of eight members.

Penetration Tester

Feb. 2021 – Sep. 2021

CybHorus S.r.l.

Napoli, IT

- **Red Teaming**: performing VA/PT, both Infrastructural and Web Application Based, to ensure that the most of the vulnerabilities are discovered.
- **Blue Teaming**: apply remediations to discovered vulnerabilities in order to reduce the attack surface; performing the installation of SIEMs/IDSs/IDPSs to monitor company networks (medium/large ones). Incident response.
- **Security Evangelist**: giving security lessons to employees in order to raise security risks awareness.

EDUCATION

Università degli Studi di Napoli Federico II

Napoli, IT

Master of Science in Computer Science, Information Security – **110/110 with honors**

Oct. 2017 – May 2021

Dissertation: "Leveraging AI to automate web penetration testing: a tool for generating a dataset"

Università degli Studi di Napoli Federico II

Napoli, IT

Bachelor of Science in Computer Science – **103/110**

Sep. 2013 – Oct. 2017

Dissertation: "Re-engineering a controller synthesis tool."

Istituto Tecnico Industriale Statale Francesco Giordani

Napoli, IT

Senior High School Degree, Information Technology – **96/100**

Sep. 2008 – June 2013

AWARDS

Accademia Aeronautica di Pozzuoli

Pozzuoli, IT

Winner of the first CTF organized by CIOC (Comando Interforze per le Operazioni Cibernetiche)

Nov. 2019

https://www.difesa.it/SMD_/Eventi/Pagine/Cyber_security_a_Pozzuoli_evento_formativo_HackAdemy.aspx

TRAINING AND CERTIFICATIONS

Accenture CyberHackademy <i>Intensive class about Information, Network and IoT Security. <u>Awarded with a scholarship.</u></i>	Napoli, IT Mar. 2020 - Oct. 2020
ITIS Francesco Giordani <i>Cisco Networking Academy – CCNA Discovery: Networking for Home and Small Business.</i>	Napoli, IT May 2013
Ardmore Language Schools Ltd <i>B2/C1 English Certificate</i>	Maidenhead, UK Sep. 2012

HARD SKILLS

Programming languages: C, C++, Java, Python, MATLAB, Intel 8086 Assembly, PL/SQL, PHP, Javascript, SED, AWK, Bash.

Databases and query languages: SQL, NoSQL, Oracle, PostgreSQL, PostGIS, Spatial Databases, OLAP, Datawarehousing, ETL algorithms.

Software Engineering: UML, OOAD, Version Control, Project Management.

Cloud computing: Docker.

Programming tools: GDB, GNU Make.

Cybersecurity: Nmap, Wireshark, Burpsuite, ZAP, Metasploit, Penetration Testing knowledge by CTF's, Cryptography (symmetric/asymmetric, DES, 3DES, Diffie-Hellman, AES, TSL/SSL, SSH, Kerberos), Access Control Policies (Chinese Walls, MAC, DAC, RBAC, HRU), Firewall Evasion Techniques, Anonimization Techniques (Proxymchains, TOR, Spoofing), Incident Response, HIDS & NIDS installation and maintenance.

LANGUAGES

Italian: Native speaker

English: Fluent

SELECTED PROJECTS

- ”Web Application Penetration Testing Dataset Collector”** July 2020 – May 2021
- A tool for generating a dataset containing Web Penetration Testing episodes.
 - **Technologies used:** Docker, Python, Selenium, MITMProxy.
- ”Denoising autoencoder for the reconstruction of noisy images.”** Apr. 2020 – June 2020
- A tool to perform the denoising of images based on a feed-forward neural network.
 - **Technologies used:** MATLAB, MNIST Dataset.
- ”ShodanGuru”** Dec. 2019 – Feb. 2020
- A tool to automatize search on the famous Shodan.io search engine.
 - **Technologies used:** Python, ShodanAPI.
- ”Design and Implementation of a Datawarehouse containing city traffic data.”** Oct. 2018 – Dec. 2018
- The Datawarehouse was realised starting from data captured by GPS installed on taxis in the city of San Francisco: these data was then refined using ad-hoc ETL procedures.
 - **Technologies used:** PL/PGSQL.
- ”Feed-forward neural network to perform handwritten character recognition”** Apr.2018 – June 2018
- **Technologies used:** Python, TensorFlow, MNIST Dataset.
- ”NYCS: Naples hYbrid Controller Syntesis”** Apr. 2017 – Dec. 2017
- *NYCS* is a tool for solving the controllability problem for Linear Hybrid Games (LHG) with safety and reachability goals. My role was to re-engine the old tool, named Space-Ex+, implemented with C Language, that was about 100K lines of code and was not designed following the object-oriented paradigm.
 - **Technologies used:** C++, GDB.
 - **Project webpage:** <http://wpage.unina.it/m.faella/nycs/>
- ”SFMobility”** Nov 2016 – May 2017
- A web application to find real time information about parking availability and city traffic of San Francisco.
 - **Technologies used:** Java, Javascript, PostgreSQL, HTML, CSS.