



# Massimo Bertocchi

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## ● EDUCATION AND TRAINING

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01/10/2018 – 11/06/2021 – Milano, Italy

**BSC IN COMPUTER SYSTEMS AND NETWORKS SECURITY** – University of Milan

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- Strong interest in Networks, Web Security and Machine Learning.
- Final thesis on Security for Big Data Systems.
- Final grade: 110/110 cum laude.

### Exchange year at University of Zürich (2019/2020)

- Attended MSc and BSc modules, such as "Mobile Communication Systems" and "Communication Systems Lab".
- Excelled in "Software Maintenance and Evolution" and "Systems Software and Distributed Systems".
- Improved in Network Troubleshooting and Data Analysis.

### CTF Official Team Member (Milan & Zürich)

- Particularly experienced in Web and Crypto challenges.
- Learnt tools and techniques to exploit vulnerabilities in websites, networks and systems.

EQF level 6 | ECTS | 180 | [www.unimi.it](http://www.unimi.it)

09/2020 – 04/2021

**CCNAV7: ENTERPRISE NETWORKING, SECURITY, AND AUTOMATION** – Cisco

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- Official Cisco training for the CCNA certification (to be taken in mid-January).
- Worked with routers and switches using OSPF in point-to-point and multiaccess networks.
- Mitigated threats and enhance network security using access control lists and security best practices.
- Understood virtualization, SDN, and how APIs and configuration management tools enable network automation.
- Developed critical thinking and problem-solving skills.

09/2020 – 05/2021

**CISCO ENGINEER INCUBATOR PROGRAM** – Cisco Networking Academy Program and Python Institute

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- Gained technology insights through dedicated Seminars and Webinars.
- Learnt the foundations of networking, existing architectures and networking trends.
- Improved my emotional intelligence, customer experience, communication skills and body language.

[www.cisco.com](http://www.cisco.com)

02/2021 – 05/2021

**CYBERCHALLENGE - CTF TRAINING** – polytechnic of Milan - Laboratorio Nazionale Cybersecurity

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Selected student from Milano for CTF training and various aspects of cybersecurity:

- Cryptography
- Reversing
- Web Security
- Hardware Security
- Network Security

<https://cyberchallenge.it/>

International university program to discuss and address new incoming IT challenges:

- Seminar 1: Big Data and its Ethical Implications
- Seminar 2: Implications of Platform Economy for Business Models
- Seminar 3: Preserving Privacy and Trust in IoT
- Seminar 4: Integrating Assistive Robots in a Multicultural and Multigenerational Society

<https://fit-europe.eu/>

## ● **WORK EXPERIENCE**

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01/09/2018 – CURRENT – Trieste, Italy

**WEBMASTER** – CAI (SEZIONE DI TRIESTE)

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- Designed and developed the web server, focusing particularly on the implementation of security policies.
- Actively participated in meetings with clients. Analysed their feature proposals and requirements, and suggested a diverse portfolio of different implementable solutions.

<https://caisag.ts.it/>

01/02/2020 – CURRENT

**REPLY AMBASSADOR** – REPLY

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- Created connections between Universities and the Business to build a network of talented students.
- Participated in workshops and training sessions all focused on design, business and emerging technologies.

01/03/2019 – 01/06/2019 – Milano, Italy

**IT CONSULTANT** – STUDIO LEGALE MANTINI E ASSOCIATI

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- Responsible of network troubleshooting, server handling and security IT maintenance.
- Performed effectively and efficiently in a self-paced deadline environment.

01/01/2018 – 28/02/2018 – Trieste, Italy

**IT DATABASE AND SERVER ADMINISTRATOR (INTERNSHIP)** – TELIT COMMUNICATIONS S.P.A.

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- Managed and maintained the database along with the management system.
- Maintained the server responsible for the backend of IOT devices.
- Presented main products to clients and assisted them throughout the acquisition process.

01/06/2017 – 01/07/2017 – Trieste, Italy

**IT SUPPORT TECHNICIAN (INTERNSHIP)** – ILLYCAFFÈ S.P.A

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- Main responsible of help desk and network support & troubleshooting.
- Gained first hand experience on the various steps of the process to deliver a product.
- Understood and integrated with the management systems.

● **LANGUAGE SKILLS**

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**Mother tongue(s):** ITALIAN

**Other language(s):**

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken production	Spoken interaction	
<b>ENGLISH</b>	C1	C1	C1	C1	B2
<b>GERMAN</b>	A2	A2	A2	A2	A2

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

● **DIGITAL SKILLS**

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**Certificates**

ECDL FULL STANDARD | CCNA v7.0 (Ongoing)

**Programming Languages**

Python | Java | C | C++ | x86 Assembly | C# | LaTeX

**Web Development**

HTML5 | CSS | JavaScript | NodeJS | ExpressJS | MySQL | AngularJS | SQL | PHP | JSON | XML | JQuery | Wordpress

**Software Engineering**

CI/CD | Git | Java Spring

**Miscellaneous**

Object-Oriented Programming | Web Security | OS kernel | Firewall | Android Development | API Services | Cryptography | Routing Protocols: OSPF, EIGRP, IGRP, RIP and RIPv2 | Machine Learning | Malware Detection | Network Security | Network Analysis | IDA | GDB

**Big Data**

Apache Hadoop | Apache Spark | Apache Atlas | Apache Ranger | Docker & Kubernetes | Apache Airflow. | Apache Hive | Apache Airflow

● **PROJECTS**

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**ECDSA - Shared Secret**

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Designed and implemented in **Python** a **ECDSA system** using **NIST Curve P-256** for encryption with **shared secret of the key**. It is used for validating a document with multiple key owners.

**APE**

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Designed and developed a **web application** based on a **ML approach** with thousands of medical records. APE is able to **deduce the condition of the patient** given as input his symptoms. By asking additional question to the user, it is also able to improve its accuracy in real-time.

**Log Analyzer**

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Designed and developed a **Java application** able to **detect potential malicious accesses** to the system, running on Spark. It makes use of a **ML approach** to learn from the system's log and improve its accuracy in intruder detection.

## VPN Camera System

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In a team, designed and developed a **camera system monitoring** the entrance to the building, **accessible through a VPN**. Being this project **eco-friendly**, it was implemented with the use of small solar panels.

## Report APP

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In a team, designed and developed an **Android application** collecting students' damage reports from the high school "A. Volta" (Trieste - IT).

## Test Describer

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In a team, designed and developed a **Java application** able to **automatically create documentation** from a given source code, making it more readable for the future review. It includes a **CI/CD approach** to improve the efficiency of a programmer.

## ● HONOURS AND AWARDS

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10/04/2016

**1st Place at a Regional Competitive Programming Competition in C**

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03/2016

**Scholarship Holder – Honeywell**

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- Scholarship for the Leadership Challenge Academy at the Honeywell Space Camp, Huntsville, Alabama (USA).
- Developed STEM leadership skills through numerous team-building challenges such as building, coding and testing rockets.
- Used computational thinking and computer science to deepen my digital skills.

06/05/2015

**Podium at Italian Chemistry Olympiad (Regional Phase) – University of Trieste**

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14/05/2013

**Best Student-Athlete Prize at Rotary Club Awards – Rotary Club**

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## ● HOBBIES AND INTERESTS

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### Basketball

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- Played basketball for 13 years a competitive level for my city team **Pallacanestro Trieste**, in second division of [FIP](#) (Italian Basketball Federation).
- Represented Italy in the **national junior team** for international tournaments.
- Selected for the **regional team** playing in the national tournament of **Trofeo Bulgheroni**.
- Participated in many tournaments, and reached the national phase of the [Join The Game 3x3](#).

### Rugby

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- Won the **provincial** tournament, the **regional** tournament and played for the **national junior tournament** of FIR.

### Bass Player - Band

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- Played **Bass Guitar** for 8 years, exploring and playing some other instruments such as guitar, drum and piano.
- Founding member of a band under official management contract with [Angel Wings Studio](#), playing concerts all around Italy and abroad. Won different contests, performed with other Italian artists and featured in shows and festivals, such as **The X Factor Italy** and **Festival Show**.

## ● **VOLUNTEERING**

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### **Amnesty International**

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Trieste - IT

- During meetings and events, recruited people to spread awareness about violation of human rights all around the world.

### **IEEE 2019 World Congress on Services**

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Milano - IT

- Provided on-the-venue guidance to guests and set up conference rooms with the relative presentations.
- Helped with the organisation of the general event.