Carlo Mazzocca

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EDUCATION

2018-2020   University of Naples Federico II - Master's degree in Computer Engineering Cum Laude (Summa Cum Laude) with a GPA of 29.75 on a 30.00 scale

2015-2018   University of Naples Federico II - Bachelor's degree in Computer Engineering Cum Laude (Summa Cum Laude) with a GPA of 29.29 on a 30.00 scale

2019   STMicroelectronics, Naples (Italy) - NeaPolis Innovation Summer Campus 2019

- Undertook two week-intensive seminars and laboratory sessions related to the use of 32-bit microcontrollers and real-time operating systems;
- Undertook dam project whose main aim was to implement a monitoring system of a dam using STM32 microcontroller and sensors.

2010-2015   Scientific High School "Leon Battista Alberti", Naples (Italy) - High school diploma

TEACHING EXPERIENCE

2022/2023   Assistant professor in Computer Lab, Numerical Analysis, University of Bologna (Italy)

2021/2022   Professor in Fundamentals of Security and Cryptography, Master in Cybersecurity: from design to operations, Fondazione Alma Mater, Bologna (Italy)

2021/2022   Assistant professor in Fundamentals of Computer Science, Telecommunications Engineering, University of Bologna (Italy)

WORK EXPERIENCE

2019   **Bit4id through Generazione Vincente, Naples (Italy) – Software Engineer**
Business: Public Key Infrastructure, Technologies for Authentication, Digital Signature, and Cryptography.

- Computer security project.
- Development of applications for digital authentication.
- Blockchain-based application development (Hyperledger).
- Analysis of electronic voting system using blockchain.

TECHNICAL SKILLS

- **Programming -** Experience in developing software applications using Python. Good knowledge of C/C++. I have also programmed in Java, Assembly, and SQL. Basic knowledge of CUDA Programming. Intermediate knowledge of MATLAB. Competent in using Windows and Linux operating systems.

- **Modeling and designing - ** Have gained experience in modeling and designing software systems using iterative and incremental development methods (Agile and Scrum). Undertook a university group project aimed to carry out a system capable of measuring the memory consumption associated with random interactions of a user with an Android device. Digital systems design with VHDL and synthesis on FPGA Xilinx. I have modeled and created a relational database for a university group project.
- **Other knowledge - ** Techniques for analysis of computer systems security and performance. Considerable knowledge of symmetric and asymmetric ciphers, cryptography data integrity algorithms, network, and Internet security. Driver and protocol design. Machine Learning algorithms.

SCIENTIFIC PUBBLICATIONS

I am the author of 7 scientific articles published in international journals and conferences.

LANGUAGES

- **Italian** (Native).
- **English** (Proficient – C1)

COMMUNICATION AND ORGANISATIONAL SKILLS

- Teamwork skills gained through successful completion of several university group projects.
- Good organizational and time management skills acquired while working and studying at the same time.

EXTRACURRICULAR INTERESTS

- I played football professionally for nine years.
- Have visited several European countries so far and I wish I could travel overseas as well.

REFERENCES AVAILABLE ON REQUEST