



# Francesco Valente

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Nationality: Italian

## WORK EXPERIENCE

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[ 10/2022 – Current ] **Classroom tutor**

*Sapienza University of Rome*

**Main activities and responsibilities:**

Tutor for the Course "Analisi Matematica 1" - Ingegneria Civile ed Ambientale

[ 11/2021 – 09/2022 ] **Classroom tutor**

*Sapienza University of Rome*

**Main activities and responsibilities:**

Tutor for the Course "Elementi di Analisi Matematica" - Professioni tecniche per l'edilizia e il territorio

## EDUCATION AND TRAINING

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[ 01/11/2020 – Current ] **Ph.D. in Information and Communication Technology**

*Sapienza University of Rome*

**Level in EQF:** EQF level 8

[ 09/2018 – 23/10/2020 ] **Master's degree in Space and Astronautical Engineering**

*Sapienza University of Rome*

**Final grade:** 110/110 with honours **Level in EQF:** EQF level 7

**Thesis:** Experimental Investigation of Launcher Networks Optimized for Telemetry Message Transport

**Main subject / occupational skills covered:**

Curriculum: Remote Sensing

[ 08/2015 – 31/07/2020 ] **Scholarship**

*Collegio Universitario dei Cavalieri del Lavoro "Lamaro Pozzani"*

**Main subject / occupational skills covered:**

Legally recognized as "Collegio Universitario di Merito" ("University College of Merit") by Ministero dell'Istruzione, dell'Università e della Ricerca (MIUR). Students are offered courses (whose attendance is mandatory) on Economics, Business, Law, Politics, International Cultures, languages, as well as meetings with personalities from the academic, entrepreneurial, politics and institutional worlds.

[ 09/2015 – 07/11/2018 ] **Bachelor's degree in Aerospace Engineering**

*Sapienza University of Rome*

**Final grade:** 110/110 with honours **Level in EQF:** EQF level 6

**Thesis:** Performance Evaluation of Flexible Time Triggered Ethernet launcher networks equipped with cut-through switches

[ 09/2010 – 06/2015 ] **High school leaving qualification in Scientific Studies**

*Polo Liceale "R. Mattioli"*

**Final grade:** 100/100 with honours **Level in EQF:** EQF level 4

## COURSES

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### Management in the Digital Economy

Course successfully completed during the Ph.D. program in Information and Communication Technology

### ESA Academy's Online Standardization Training Course

European Space Agency Academy

[ 25/07/2022 – 29/07/2022 ] **European Union in Space: Law and Technology**

University of Genoa

## LANGUAGE SKILLS

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**Mother tongue(s):** Italian

**Other language(s):**

**English**

**LISTENING C1 READING C1 WRITING C1**

**SPOKEN PRODUCTION C1 SPOKEN INTERACTION C1**

## DIGITAL SKILLS

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### My Digital Skills

Good knowledge of programming languages Python, C/C++ | Excellent knowledge of MATLAB | Good knowledge of Machine Learning techniques | Good knowledge of markup language LaTeX | Good command of Windows and Linux operating systems | Good command of Microsoft Office Suite

## MANAGEMENT AND LEADERSHIP SKILLS

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### Team leading

Excellent team leading skills gained as team leader in many teamworks during university courses and in my experience at Sapienza NetLab, where I mentored younger student members in order to lead their research work towards common goals set.

## ORGANISATIONAL SKILLS

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### Working under pressure and time constraints

Excellent ability to organize the work, gained through the necessity to balance academic and Collegio Universitario dei Cavalieri del Lavoro "Lamaro Pozzani" commitments in order to pass all exams and to conclude all tasks on time and with the highest result.

## COMMUNICATION AND INTERPERSONAL SKILLS

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### Public speaking

Excellent public speaking skills gained through many public presentations in formal events during my experience at Collegio Universitario dei Cavalieri del Lavoro "Lamaro Pozzani" and at Sapienza University of Rome.

### Teamwork

Excellent teamwork skills, gained through experiences at Sapienza University of Rome (in particular, as component of Sapienza NetLab, working in the context of research activities on behalf of European Space Agency and Italian Space Agency), as well as at Collegio Universitario dei Cavalieri del Lavoro "Lamaro Pozzani".

## PROFESSIONAL QUALIFICATIONS

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[ 12/2020 – Current ] **Industrial Engineer**

Italian State Exam - Sapienza University of Rome - December 2020

[ 04/2022 – Current ] **Cisco Networking Academy Instructor**

Qualified Cisco Networking Academy Instructor for the Course "IoT Fundamentals: Connecting Things"

## HONOURS AND AWARDS

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### Honours Programme - Master's degree in Space and Astronautical Engineering

**Awarding institution:** Sapienza University of Rome

### Honours Programme - Bachelor's degree in Aerospace Engineering: Awarding institution:

Sapienza University of Rome

## PUBLICATIONS

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### Flexible Time Triggered Ethernet: A Cost Efficient COTS-Based Technology for the Development of Launcher Networks

V. Eramo, F. Valente, F.G. Lavacca, T. Fiori, V. Papandrea, M. Albano, S. Ciabuschi, "Flexible Time Triggered Ethernet: A Cost Efficient COTS-Based Technology for the Development of Launcher Networks," *2022 IEEE 9th International Workshop on Metrology for AeroSpace (MetroAeroSpace)*, 2022, pp. 97-102

### Perspectives on AI-based Algorithms Applied to C-RAN Functional Splitting and Advanced Antenna System Problem

F. G. Lavacca, V. Eramo, A. Cianfrani, M. Listanti and F. Valente, "Perspectives on AI-based Algorithms Applied to C-RAN Functional Splitting and Advanced Antenna System Problem," *NOMS 2022-2022 IEEE/IFIP Network Operations and Management Symposium*, 2022, pp. 1-5.

## **Proposal and Investigation of a Convolutional and LSTM Neural Network for the Cost-Aware Resource Prediction in Softwarized Networks**

Eramo, V., Valente, F., Catena, T., & Lavacca, F. G. (2021). Proposal and Investigation of a Convolutional and LSTM Neural Network for the Cost-Aware Resource Prediction in Softwarized Networks. *Future Internet*, 13(12), 316.

## **AI-based Resource Prediction in Network Function Virtualization Architectures**

Eramo, V., Valente, F., Lavacca, F. G., & Catena, T. (2021, October). AI-based Resource Prediction in Network Function Virtualization Architectures. In *2021 International Conference on Information and Communication Technology Convergence (ICTC)* (pp. 909-914). IEEE.

## **Cost-Aware and AI-based Resource Prediction in Softwarized Networks**

Eramo, V., Valente, F., Lavacca, F. G., & Catena, T. (2021, October). Cost-Aware and AI-based Resource Prediction in Softwarized Networks. In *2021 AEIT International Annual Conference (AEIT)* (pp. 1-4). IEEE.

## **Simulation and Experimental Evaluation of a Flexible Time Triggered Ethernet Architecture Applied in Satellite Nano/Micro Launchers**

Eramo, V.; Lavacca, F.G.; Valente, F.; Pisculli, A.; Caporossi, S. Simulation and Experimental Evaluation of a Flexible Time Triggered Ethernet Architecture Applied in Satellite Nano/Micro Launchers. *Aerospace* 2018, 5, 84.

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*Autorizzo il trattamento dei miei dati personali presenti nel curriculum vitae ai sensi del Decreto Legislativo 30 giugno 2003, n. 196 e del GDPR (Regolamento UE 2016/679).*

*Roma, 03/10/2022*