FORMATO EUROPEO PER IL CURRICULUM VITAE

INFORMAZIONI PERSONALI

Nome   **AFIF Oumaima**

Indirizzo

Nazionalità

ESPERIENZA LAVORATIVA

- 07/2023 – 08/2023   **Spectra sensors predictive models for structures**

  Università di Bologna-ARCES (Advanced Research Center on Electronic Systems)
    * Machine Learning-Assisted Environmental Parameter Monitoring and Acquisitions through IoT Sensors.
    * MATLAB scripts to suit project needs, streamlining data handling and simulation processes.
    * Implemented algorithms on Raspberry Pi for continuous sensing and monitoring across applications.

- 08/2022 – 09/2022   **CAD Engineer**

  Errebi Automazioni Srl
  Nervesa della Battaglia TV, Italy

    * Drafting for 3D parts/Assembly.
    * Define and analysis of Tolerance.
    * Design 2D/3D, Autocad.

  Training: ISO 16792, ISO 1101, ISO5458 standards, CETOL 6σ.

- 02/2022 – 07/2022   **Research Project on Routing in CubeSat Network based on architecture and topology design.**

  Ca' Foscari - University of Venice

* Analysis and evaluation of the communication between CubeSats and ground stations on Matlab Simulink interference on virtual realtime.
* 6 Degree-Of-Freedom simulation of CubeSat in Matlab.
* Time optimization and Attenuation reduction for data transmission systems.
* Routing analysis in two methods: Single and multi-layers communication.
* Adjanency Matrix and Runge-Kutta Methods application for NanoSatellites.
* Node Method importance in temporal satellite networks based on time slot correlation.

Training: comprehensive literature review and report writing.

- 02/2022 – 07/2022   **Industrial Training**

  Aerospace, Midparc Free Zone, Casablanca 20200, Morocco.

  * Reverse engineering for former Boeing aircraft.
  * Technical drawing of Tubes/Ducts for Boeing's aircraft.
  * Create and edit documentation on Python with Pandas.
  * Planning and customer support.

  Training: Python, Catia V5.

- 11/2021 – 12/2021   **Industrial Training**

  Alten Maroc –UIR, AMSA6: Connected –Car Road safety and convenience, Casablanca, Morocco.

  * Braking system design.
  * Cellular V2X communication

  Training: public speaking, stress management techniques

- 06/2021 – 8/2021   **Industrial Training**

  CAPGEMINI ENGINEERING, 1100 bd Al Qods Sidi Maarouf, Casablanca, Morocco.

  * Developing the KPI Indicator on Excel VBA (OTD, FTR, FTQ...) for the Airbus team.
  * Evaluating the performance of Airbus (Capgemini customer) employees through the Skills Matrix for PMBP (Project management Business partner) and performing Radars.
  * Follow up on deliverables for Airbus's team in Capgemini on Excel and detect non-conformity.

  Training: Excel VBA, Quality Management, Meeting Animation.

ISTRUZIONE E FORMAZIONE

- 03/2023-02/2026   **Ph.D. Student,**
  Università di Bologna. Department of Electrical, Electronic, and Information Engineering "Guglielmo Marconi"

Title: Machine learning-assisted Spectral sensors for Environmental, structural, and Production Management.

Course attended and passed:
* Advanced Cyber-Physical Systems - Elements of Machine Learning for Sensor and Edge Computing.
* The Vector Network Analyzer: operating principles and applications.

Training: Eigenvector University Europe 2023: ADVANCED TOPICS
* Machine Learning for Calibration & Classification
* Introduction to Hyperspectral/Multivariate Image Analysis
* Multivariate Curve Resolution (MCR)
* Variable Selection
* Intro to multi-way Analysis.

Scientific paper:
* **Accepted paper**: titled "A Stand-Alone Moisture Content Sensor Based on a Loaded SelfOscillating Antenna."
* **Submitted paper**: titled" A Non-Invasive, Machine Learning Assisted Skin-Hydration Microwave Sensor."
* **Two draft papers**: One about "Enhancing Indoor Wellness through Machine Learning-Assisted Environmental Parameter Monitoring and Acquisitions through IoT Sensor Nodes". Second about" Miniaturizing of vector Network Analyzer for microwave sensing and Monitoring Applications assisted with Machine Learning."

- 02/2022 – 07/2022   **Erasmus+Exchange,**

Ca' Foscari University of Venice, Venice, Italy.

- 09/2017 – 07/2022   **Aerospace Engineering, State Engineer with honor (GPA4.0)**

Université Internationale de Rabat,Rabat,Morocco.

Aerospace, Aeronautics, Satellite, Mechanics,

- 09/2014 – 07/2017   **Baccalaureate in physical science,**
Lycée lalla Amina,Meknes, Morocco.
Physics, Mathematics, Mechanics, life, and earth sciences.

Passed National exam with 19/20.

CAPACITÀ E COMPETENZE PERSONALI
Acquisite nel corso della vita e della carriera ma non necessariamente riconosciute da certificati e diplomi ufficiali.

PRIMA LINGUA — **ARABO**

ALTRE LINGUE

FRANCESE / INGLESE

- Capacità di lettura — eccellente
- Capacità di scrittura — eccellente
- Capacità di espressione orale — eccellente

TEDESCO / ITALIANO

- Capacità di lettura — elementare
- Capacità di scrittura — elementare
- Capacità di espressione orale — elementare

CAPACITÀ E COMPETENZE RELAZIONALI
Vivere e lavorare con altre persone, in ambiente multiculturale, occupando posti in cui la comunicazione è importante e in situazioni in cui è essenziale lavorare in squadra (ad es. cultura e sport), ecc.

* ABILITY TO WORK IN A TEAM, adapt to diverse team dynamics, and commit to achieving common goals.

Able to foster collaborative relationships across diverse teams.

CAPACITÀ E COMPETENZE ORGANIZZATIVE
Ad es. coordinamento e amministrazione di persone, progetti, bilanci; sul posto di lavoro, in attività di volontariato (ad es. cultura e sport), a casa, ecc.

ABILITY TO BALANCE MULTIPLE DEADLINES AND TASKS

Organizational skills that allow for efficient multitasking without compromising quality.

Ability to deliver high-quality work under tight deadlines.

CAPACITÀ E COMPETENZE TECNICHE	* Machine learning, Multivariate Statistical analysis based monitoring application
	* Matlab, Flight Control System and Control Design Engineering, Mechanics engineering, Aeroacoustics, Materials for Mechanical Engineering Design, Non-Destructive Testing, Energy System Design, and Quality Management for Engineering.
	* Matlab/Simulink, C/C++, Python, Catia V5(2D/3D), AutoCAD, Ansys (2D/3D, CFD Fluent, Acoustics,Simulation) BUS and Communication systems (I2C, CAN), Embedded Systems (Arduino, Raspberry Pi platforms), Controllers (PID,PI, PD...), Microsoft Office(Word, PowerPoint, Excel/ Excel VBA), G-Suite.
ALTRE CAPACITÀ E COMPETENZE *Competenze non precedentemente indicate.*	My career and passion for addressing remote sensing and environmental monitoring challenges have driven my specialization in my Ph.D. education. A focus on research and monitoring contributes significantly to product management and environmental resilience. I possess strong communication skills, thrive in teamwork environments, and excel in technology relevant to industrial engineering.

Data

Firma

05/04/2024