OBJECTIVE

A Ph.D. Student in remote sensing and machine learning.

PROFESSIONAL EXPERIENCES

ST Microelectronics

📅 November 2024 - On going   📍 Milano,Italy

- Collaborating and working on Machine Learning and biomedical signals for EEG using Q-Var for drowsiness detection. Engaged in Data acquisition using Q-var at STM in Agrate from 12- 15 December 2023.

Internship at OBEN S.R.L

📅 November 2022 - Ongoing   📍 Italy

- Engaged in hands-on drone flying missions, gaining practical experience in the field of unmanned aerial systems.
- Acquired knowledge of ENAC regulations and protocols, ensuring all drone operations were compliant with Italian Civil Aviation Authority standards.

Research Collaborator

📅 15th Feb 2023 – 14th May 2023   📍 Rome, Italy

- Collaborated in 3 months work contract with the Department of Civil and Environmental Engineering on a project focused on "Techniques for the identification of plastics in the sea."

Master's Thesis Supervision

📅 Dec 2022 - May 2023   📍 Sapienza University, Rome, Italy

- Co-supervised a master's student, Muhammed Muzamil Shair, on "Development and Implementation of Plastic Detection Using Hyperspectral Imaging Techniques". Main Supervisor: Marco Balsi.

Internship at Sapienza University of Rome

📅 August - September 2022   📍 Rome, Italy

- Undertook an internship in the DIET laboratory, focusing on the recognition of plastic waste using hyperspectral sensor data transported on drones, aimed to complement the research conducted in my Master's thesis, co-supervised by Dr. Balsi.

Remote internship at Sapienza University of Rome

📅 March 2022- June 2022   📍 Guelma, Algeria

- Engaged in weekly teleconference meetings, processing, programming, exchanging data, and reports.
- Supervised by Pr. Boudjehem from the advanced LAB at Guelma University, Algeria, Dr. Marco Balsi from the Lab DIET, and Dr. Monica Moroni from DICEA at Sapienza University of Rome.

Internship at SARL ABIDI Industry

📅 19 to 31 March 2022   📍 Guelma, Algeria

- Trained at ABIDI Industry to prepare for a professional career.
- Applied theoretical and methodological knowledge acquired during my training and prepared for my final Master's thesis project.

EDUCATION

P.hD Student

📅 2022-2025   📍 Sapienza University.

topic: Aerial remote sensing for plastic waste detection using hyper-spectral and satellite imaging based on Deep Learning.

Master 2 In Instrumentation 2nd Semester

📅 2021-2022   📍 8 Mai 1945 University.

Master 2 Erasmus Scholarship 1st Semester

📅 2021-2022   📍 ULPGC University, Spain.

Master 1 in Instrumentation

📅 2020-2021   📍 8 Mai 1945 University

Bachelor's degree in science technology – specialisation : Electronics

📅 2016-2020   📍 8 Mai 1945 University

Baccalaureate in experimental Sciences.

📅 2016   📍 Benmarce High School

TECHNICAL SKILLS

- Remote Sensing & Hyperspectral Imaging
- Machine Learning & Data Processing
- MATLAB & Python Proficiency
- Microsoft Tools Proficiency
- Drone pilote

LANGUAGES

Arabic ●●●●●
French ●●●●●
English ●●●●●
Italian ●●●○○
Spanish ●●○○○

PERSONAL INTERESTS

Music (Guitarist & Instructor)

Musical Event Organization

Swimming & Football   Video Editing

SOCIAL COMPETENCE

Good attitude for communication.

Leadership and Team Spirit.

PUBLICATIONS & CONFERENCES

- **Title**: Real-time plastic litter detection using hyperspectral sensing on drone.
- **Authors**: Marco Balsi, **Soufyane Bouchelaghem**, Livio Conti, Monica Moroni, Riccardo Scalia.
- **Publisher**: TechRxiv.

4th International Conference and Summer School NUMTA 2023 "Numerical Computations: Theory and Algorithms"

📅 14-20 June 2023   📍 Calabria, Italy

- **Title**:Plastic litter sorting using Hyperspectral Sensing and Linear Discriminant Analysis.
- **Authors**: Monica Moroni, Soufyane Bouchelaghem, Marco Balsi.

First International Conference and Expo Innovation and Sustainability in Engineering & Technology

📅 14 June 2023   📍 Nablus, Palestine

- **Title**: Real-time plastic litter detection and localization from drone for cleanup assistance.
- **Authors**: Marco Balsi, Soufyane Bouchelaghem, Monica Moroni.

Remote Sensing of Marine Litter Workshop

📅 16-17 October 2023   📍 Netherlands, Noordwijk

- **Title**: Real-time plastic litter detection and localization from drone for cleanup assistance.
- **Authors**: Marco Balsi, Soufyane Bouchelaghem, Monica Moroni.

13th IEEE GRSS Workshop on Hyperspectral Image and Signal Processing: WHISPERS 2023

📅 31 October - 2 November 2023   📍 Athens, Greece

- **Title**: Real-time plastic litter detection using hyperspectral sensing on drone.
- **Authors**: Marco Balsi, Soufyane Bouchelaghem, Monica Moroni, Livio Conti, and Riccardo Scalia.

IEEE Mediterranean and Middle-East Geoscience and Remote Sensing Symposium

📅 15/17 April   📍 Oran, Algeria

- **Title**: Cross domain machine learning approaches using hyperspectral imaging for plastics litter detection.
- **Authors**: Soufyane Bouchelaghem, Imad Eddine Tibermacine, Marco Balsi, Monica, Moroni, Christan Napoli.

UNIVERSITY PROJECTS

Master thesis - 8 MAI 1945 University

📅 2021 - 2022   📍 Guelma, Algeria

- My project "Aerial remote sensing for plastic waste using hyper-spectral images and machine learning" under Pr.Boudjehem supervision where I have proved accurate application of the Hyperspectral data analysis methodologies obtained for the recognition of plastic waste at sea, also applying and exploring different algorithms for classification.

Bachelor thesis - 8 MAI 1945 University

📅 2019-2020   📍 Guelma, Algeria

- My project on alarm system security and strategies demonstrated my analytical skills and ability on detailing and understanding of the electronic control field.

CERTIFICATIONS

Drone Pilote Certificate

📅 15 November 2023   📍 Rome, Italy

- Obtained a A1/A3 level certificate.

HACCP Certificate

📅 28 October 2022   📍 Rome, Italy

- Obtained the HACCP (Hazard Analysis and Critical Control Points) certification for food safety and health regulations.

Prevention and Security Certificate

📅 04 February 2023   📍 Rome, Italy

- Completed training on workplace safety and prevention measures to create a secure environment for customers and staff.

Wikistage Particaption

📅 29 February 2020   📍 Algeria, Guelma

- Performed with my band and sponsored the WikiStage event music Gear.

AWARDS & HONORS

📅 14 - 15 June 2023   📍 Nablus, Palestine

- Best Paper Award at the first International Conference & Expo on Innovation & Sustainability in Engineering & Technology.

2nd Rank in Bachelor's Class

📅 2018-2021   📍 8 Mai 1945 University

- Recognized for academic excellence and ranked second in my class during the Bachelor's program.

Certificate of Good Behavior - University

📅 2016 - 2022   📍 8 Mai 1945 University

- Awarded for maintaining behavior and conduct during my time at the university.

Certificate of Good Behavior - High School

📅 2013 - 2016   📍 Benmarce High School

- Recognized for high standards of behavior and discipline during my high school years.

REFERENCES

Prof. Marco Balsi (Supervisor)
- Position: Professor (Assistant) at Sapienza.
- Email: marco.balsi@uniroma1.it

Dr. Monica Moroni
- Position: Profesor (Associate) at Sapineza.
- Email: monica.moroni@uniroma1.it

Pr.Irrera
- Position: Full profesor at Sapineza.
- Email: fernanda.irrera@uniroma1.it

Pr. Boudjehem Djalil
- Position: Full Profesor at 8 Mai 1945 Uni.
- Email: boudjehem.djalil@univ-guelma.dz