Giuseppe MURRO
Data Scientist

in linkedin.com/in/giuseppemurro   github.com/gmurro
+39 3409584750   @ g.murro23@gmail.com
https://gmurro.github.io/
He/him 23 march 1998 (24 years old) in Acquaviva delle Fonti (BA), Italy

💼 PROFESSIONAL EXPERIENCE

January 2023
Present

Junior Data Scientist, TREATWELL, MILAN, Italy
Permanent job - FULL-TIME EMPLOYMENT CONTRACT
Member of the Machine Learning team applying Artificial Intelligence solutions for advanced features on the Treatwell app.

`PyTorch Lightning` `Docker` `FastAPI` `Kubernetes` `SQL`

June 2022
November 2022

Data science intern, 3RDPLACE, MILAN, Italy
Datrix SpA - CURRICULAR INTERNSHIP
Research and development of an Adversarial Machine Learning solution applied in the NLP field. The job is part of the CybersecH project promoted by Italian Government.
> Adversarial attack appliend to textual inputs
> Machine learning hardering

`Python` `Tensorflow` `Pytorch` `BERT` `Docker` `FastAPI`

September 2020
December 2020

Technical/scientific consultant, CILab, UNIVERSITY OF BARI "ALDO MORO", Italy
Departement of Computer Science - OCCASIONAL SELF-EMPLOYMENT CONTRACT
Development and integration of software modules for the RPASInAir research project co-funded by the European Union, under the supervision of the CILab laboratory.
> Extension of the work done during the Bachelor's thesis
> Integration between C++ and python software modules
> Inter-process communication management in a publish/subscribe framework using NNG library
> Build automation using CMake
> Crowd detection methods for drone safe landing using pre-trained DNN models

`C++` `Python` `NNG` `CMake` `Tensorflow` `YOLO` `VisDrone`

September 2019
November 2019

Clerk, STUDENT ADMINISTRATION OFFICE, UNIVERSITY OF BARI "ALDO MORO", Italy
Department of Agricultural Science - SELECTED FOR STUDENT COLLABORATION ACTIVITIES
I have been selected to make 150 hours of collaboration at the University structures satisfying the merit requirements of the call. Involed in administration office activities.

🎓 EDUCATION

September 2020
December 2022

Alma Mater Studiorum - University of Bologna, BOLOGNA, Italy
Master's degree - LM-32 ARTIFICIAL INTELLIGENCE
> The programme address specialized topics like Machine Learning, Automated Reasoning, Computer Vision, Natural Language Processing, Optimization
> Courses are fully taught in English
> Thesis title : "SynBA : A contextualized Synonym-Based adversarial Attack for text classification"
> **Final grade : 110/110 cum laude** - GPA of 4.0/4.0 over the 2 years (Italian GPA = 29.4/30)

August 2021
February 2022

Vrije Universiteit Amsterdam, AMSTERDAM, Netherlands
Erasmus+ Mobility for Studies - ARTIFICIAL INTELLIGENCE
> Main research topics : Reinforcement Learning and Evolutionary Computing.
> Continuous exposure to expats leading to significant improvement of my English level
> The experience meant a great improvement in my soft skills : adaptability to change, problem-solving, open-mindedness.

September 2017
July 2020

University of Bari "Aldo Moro", BARI, Italy
Bachelor's Degreee - L-31 COMPUTER SCIENCE AND TECHNOLOGIES FOR SOFTWARE PRODUCTION
> Mainly focused on the techniques of software engineering
> Thesis title : "Design, development and integration of a crowd detection software module in a RPAS"
> **Final grade : 110/110 cum laude** - GPA of 3.85/4.00 over the 3 years (Italian GPA = 29.16/30)

📕 OTHER COURSES

February 2022
June 2022
	AlmaEnglish B2 - University of Bologna, BOLOGNA, Italy
	AlmaEnglish project offers the opportunity to improve English language skills and obtain the international language certification IELTS Academic.
	  ❯ Selected after a placement test
	  ❯ 40 hours of face-to-face teaching + 10 hours of e-learning support
	  ❯ **Overall IELTS Band Score 6.5** achieved on 16 July 2022 (CEFR Level B2)

March 2019
June 2019
	CyberChallenge.IT 2019, BARI, Italy
	Italian training program in cybersecurity for undergraduate students organized by CINI. Former member of the University of Bari "Aldo Moro" team.
	  ❯ Selected from 20 out of an initial 360 candidates for the course
	  ❯ Studying network security principles, possible attacks and countermeasures to counter them learned
	  ❯ Practice in CTF hacking competitions using Kali Linux

☰ TECHNICAL SKILLS

Programming	**Python** Java, **Scala**, Prolog, MiniZinc, C
Libraries	**NumPy**, Pandas, Scikit-learn, **TensorFlow**, Pytorch, OpenCV
Technologies	Git, Docker, Kubernetes, Spark, Linux, Google Cloud

🌐 LANGUES

English (B2)	●●●●○
Italian (Native)	●●●●●

🖥 PROJETS

NLP PROJECTS : TEXT SUMMARIZATION, POS TAGGINIG & FACT CHECKING   JUNE 2022

 github.com/gmurro/part-of-speech-tagging   github.com/gmurro/podcast-summarization
 github.com/gmurro/fact-checking

Application of RNN and Seq2Seq to solve three well known NLP tasks : *Text summarization* applied to podcast transcripts, *Part of speech tagging*, the process of marking up words in a text with the correspondent grammatical tag and *Fact checking*, to verify the reliability of some statement, by comparing it with a given knowledge base.

`Python` `TensorFlow` `Keras` `LSTM` `Seq2Seq` `BART` `HuggingFace` `NLP`

MOUNTAIN SCOOTER PROBLEM   FEBRUARY 2022

 github.com/gmurro/mountain-scooter-problem   Report

Addressing the *Mountain Car problem*, a classic reinforcement learning problem, using 2 different approach : Hybrid Nelder-Mead Particle Swarm Optimization through neuroevolution and Q-Learning algorithm.

`Python` `OpenAI Gym` `Numpy` `Optimization` `Reinforcement Learning`

EVOLUTIONARY EVOMAN PLAYER   SEPTEMBER 2021

 github.com/gmurro/evoman-player-evolutionary-computing   Report

Implementation of two *Evolutionary Algorithms* to teach an agent player how to fight against an enemy that shoots, jumps and moves using a python framework called EvoMan.

`Python` `NEAT` `EvoMan` `Neuroevolution` `Pygame`

VERY LARGE SCALE INTEGRATION   JULY 2021

 github.com/gmurro/VLSI   Report

Implementation of different solution in CP, SAT and SMT to solve a Constraint Optimization Problem about VLSI (Very Large Scale Integration) in order optimize the placement of electrical circuits on a plate.

`Python` `MiniZinc` `Contraint Programming`

FOOD RECOGNITION   MARCH 2021 - JUNE 2021

 github.com/gmurro/food-recognition   Report

The Food Recognition challenge is a competition hosted by AIcrowd. Implementation of *Deep Learning* techniques to train **segmentation models** which can detect the individual food items from images.

`Python` `TensorFlow` `UNet` `Segmentation`

TABLUT AI PLAYER   NOVEMBER 2020

 github.com/gmurro/tablut   Slides

Java-based intelligent agent able to play the ancient board game Tablut using MinMax algorithm. Winner of Tablut Students Challenge 2020 of the Fundamentals of Artificial Intelligence course held at the University of Bologna

`Java` `Game Theory` `MinMax` `Tree search`