Simone **Giampà**
Computer Science Engineer

About me
As a Computer Science Engineer, I possess a profound passion for leveraging technology to solve complex problems and drive innovation. With a solid foundation in ML and Robotics principles and a diverse range of practical experiences, I bring a unique blend of technical expertise and creative problem-solving abilities.

Personal
Simone Giampà
👥 21/08/1999
🌐 Nationality: Italian
📍 Milan, Italy

Areas of specialization
Artificial Intelligence · Robotics · Machine and Deep Learning · Embedded Systems

Interests
Aerospace · Space Exploration · Robotics · Artificial Intelligence

Programming
C, C++
Java
Python
Matlab
ROS, ROS2
Tensorflow, Tensorflow Lite
SQL
LaTeX

Hardware Platforms
Arduino Uno
Arduino Nano 33 BLE Sense
STM32F4 Nucleo
ESP32 Wifi

Languages
mother tongue	C2	**Italian**
proficient	C1	**English**

Certifications
2018	IELTS Grade 7.5: Level C1
2017	B2 First Cambridge
2016	B1 PET Cambridge
2015	Trinity College Grade 6

Contacts
✉ Mail
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in Linkedin Profile
Github Profile

EDUCATION

2021 - Present — **Master's Degree in Computer Science Engineering**
POLITECNICO DI MILANO · Milan, Italy 📍
Currently attending

2018 - 2021 — **Bachelor's Degree in Computer Science Engineering**
POLITECNICO DI MILANO · Milan, Italy 📍
Grade: **101/110**

PROJECTS AT POLITECNICO DI MILANO

2023 — **Robot head construction: Robotics and Design multi-disciplinary course**
`Workshop Laboratory · 3D printing · Multidisciplinary project` 🎧 Repository
Multidisciplinary project of Robotics and Design: building and programming of a 3d printed and programmable robot head capable of mimicking human emotions and expressiveness, while interacting with other robots of the other student groups.

2023 — **Neural Network for Spoken Language Recognition on an Embedded system**
`Tensorflow Lite · Neural Networks · Embedded Systems` 🎧 Repository
Neural network recognizing the language a person is speaking, from mel spectrogram features. Developed on an Arduino Nano (TinyML kit) with TensorFlow Lite for Microcontrollers

2023 — **Natural Language Text Processing with Transformer Models**
`Neural Networks · BERT Transformers · Natural Language` 🎧 Repository
Text analysis, sentiment analysis and response generation with BERT Transformer models

2023 — **Nonlinear ARMA time series classification with Online Machine Learning models**
`Streaming Machine Learning · Python · River library` 🎧 Repository
Non-linear ARMA time series generation and classification with streaming (incremental learning) machine learning models in Python using the River ML library

2022 — **Deep Learning: Convolutional Neural Networks and Transfer Learning**
`Tensorflow · Python · Image Classification` 🎧 Repository
Image classification challenge with convolutional neural networks and transfer learning

2022 — **Mobile Robotics projects with ROS and real-world LIDAR and encoders data**
`ROS2 · C++ · SLAM · Mobile Robot · Autonomous navigation` 🎧 Repository
Two projects in C++ using ROS aimed at analyzing and computing data coming from mecanum wheels encoders sensors and a LIDAR for autonomous simultaneous localization and mapping (SLAM), mounted on a mobile robot in the Robotics laboratory

2022 — **STM32 Nucleo with Sensor Systems development board**
`Sensors · C · Embedded System` 🎧 Repository
Development of many little projects aimed at handling a wide variety of sensors coupled with the STM32 Nucleo board, using FreeRTOS and several wire communication protocols

2022 — **STM32 Nucleo with Miosix Embedded OS kernel-space programming**
`STM32 · Embedded OS programming · C++ · Linux` 🎧 Repository
Development of John Conway's Game of Life cellular automaton on an STM32 running Miosix embedded OS in kernel-space and communicating via serial interface with an emulated terminal on a Linux machine

2021 — **SW engineering thesis project: an online multi-player board game**
`Java · Game · Group thesis work` 🎧 Repository
Group project development in Java (terminal and GUI interfaces) of a multi-player online board game: Maestri del Rinascimento

2021 — **LASER dynamics simulation with cellular automata in Matlab and Java**
`LASER dynamics · Matlab · Java` 🎧 Repository
Simulation of LASER quantum dynamics using a cellular automata

2021 — **Vivado project: image histogram equalization in VHDL**
`Xilinx Vivado · VHDL` 🎧 Repository
Logic circuit definition of an algorithm for the equalization of a gray-scale image histogram

2020 — **A time and memory efficient command-line text editor in C**
`C · Algorithms and Data Structures` 🎧 Repository
Time and memory efficient text editor using optimized algorithms and data structures