Andrea **Massignan** | Computer Scientist

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Education

Sapienza University of Rome	**Italy**
M.Sc. in Computer Science	*2023–Present*

Focus: Machine Learning, Deep Learning, Computer Vision, IoT Systems

Sapienza University of Rome	**Italy**
B.Sc. in Computer Engineering, Ingegneria Informatica	*2019–2023*

Thesis: Web-based game interface and virtual environment design

Technical Skills

Languages: Python, JavaScript, PHP, C/C++, Solidity, SQL, HTML/CSS

Frontend: React, React Native, Vite.js, Material-UI

Backend: Node.js, Express, Flask, REST APIs

AI/ML: TensorFlow, PyTorch, CNN, U-Net, Computer Vision, Audio Processing

Databases: PostgreSQL, MySQL

Blockchain: Ethereum, Smart Contracts, Web3, DApp Development

IoT: ROS, Gazebo, ESP32, Arduino

Tools: Git, Docker, Photoshop, Premiere Pro, Audition

Selected Projects

Python, U-Net, CNN, Vite.js

P-Segmentation – Medical Image Analysis
Developed automatic prostate cancer segmentation system for MRI/CT images using an ensemble of three U-Net models trained on multiple datasets, achieving improved accuracy through model combination.

Python, Gradio, MusicGen, Demucs, U-Net

Audio Restoration Studio
Built a Gradio-based workflow for stress-testing generative audio models, implementing degradation and restoration pipelines with custom-trained neural networks for denoising research.

Chrome Extension, Flask, CNN

Angel – URL Security Analyzer
Created a Chrome extension with CNN-powered backend for real-time URL security analysis, intercepting browser requests and providing instant threat assessments to users.

Ethereum, Solidity, React, Web3

4Ever – NFT DApp
Developed a decentralized application on Ethereum for NFT management, featuring smart contracts for secure transactions, a marketplace, and a gamified quest reward system.

React Native, ESP32, Arduino, Python

Gym Tracker – IoT Fitness App
Built cross-platform mobile app paired with ESP32 sensors for real-time workout tracking, posture analysis, and form correction with custom Arduino firmware and data visualization tools.

React, Node.js, Express, PostgreSQL

Ci Pensa Ele – Scheduling System
Full-stack calendar application with appointment scheduling, reservation management, authentication, caching optimization, and encrypted data storage.

Languages

Italian (Native)   English (Fluent – Professional proficiency)