

# Mehdi Amlal

✉ mehdi.amlal.business@gmail.com    ☎ +393791775345    in mehdiamlal

## Education

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### Sapienza University of Rome

Sept 2024 – Present

MS in Computer Science - Artificial Intelligence

- GPA: 4.0/4.0
- Admitted as one of 80 students from across Italy for the merit-based Collegio RUI in Rome.

### University of Turin

Sept 2020 – Apr 2024

BS in Computer Science

- GPA: 3.9/4.0
- Received merit-based scholarship for three years in a row.

## Experience

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### Research Intern

Rome - Stockholm

The Good AI Lab

Sept 2025 – Present

- Conducting reaseach on model merging and domain adaptation for computer vision tasks.
- Working on a project in collaboration of the *GLADIA Lab* at *Sapienza University*.

### Software Engineer

Turin - Milan, Italy

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Mar 2024 – Aug 2024

- Worked on cloud data migration for one of Italy's largest commercial banks.
- Refactored existing microservices for internal tools, resulting in a 60% performance improvement.
- Automated batch data flows between on-prem systems and Azure, reducing processing time by 30%.
- **Tools:** Java, Microsoft Azure, Spring Boot, Spring Batch, Spring Data, MongoDB, Splunk

### Research Assistant

Turin, Italy

University of Turin - CS Department

Sept 2023 – Apr 2024

- Designed and implemented a group formation platform aimed at individuals with autistic spectrum disorder.

## Projects

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### M<sup>3</sup>SB: Multi-Model Merging via Spherical Barycenters

[GitHub Repository](#) 

- Developed and tested a path-independent spherical-barycenter generalization of SLERP for merging multiple neural networks like ViT-B/16 fine-tuned on different image classification tasks in both full-parameter and task-vector spaces.
- **Tools:** PyTorch, Python, Git, Hugging Face, Kaggle

### Comparative Analysis of LLMs for Code Generation

- Benchmarked code-generation LLMs (StarCoder2 vs. CodeLlama) on industry-standard datasets, proving the superiority of code-centric pre-training over fine-tuning.
- **Tools:** Python, Hugging Face, Kaggle

### Real-Time Italian Sign Language Detecting System

[GitHub Repository](#) 

- Developed a real-time detection system for Italian Sign Language using landmark detection and machine learning.
- **Tools:** Python, scikit-learn, MediaPipe, OpenCV

## Extracurricular Activities

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### **Boston Consulting Group (BCG) Hackathon**

*Milan, Italy  
Oct 2024*

- Among 14 selected from 200+ applicants for BCG Platinion's Hackathon.
- Developed and pitched a product to reduce the environmental impact of food packaging.

## Skills

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**Programming Languages:** C, Java, Python, SQL, JavaScript

**Experience With:** Git, GitHub, OOP, System Programming, Machine Learning, Data Science, Parallel Programming, scikit-learn, MediaPipe, OpenCV, Pandas, NumPy, Matplotlib, PyTorch, Tensorflow, Keras

**Spoken Languages:** Italian, Arabic, English, French