



Amedeo Carraro

Italian citizen, available to relocate

+39 3451625121

amedeo.carraro01@gmail.com



Computer Engineer specialized in Artificial Intelligence and Machine Learning, with experience in designing, optimizing, and deploying end-to-end neural network pipelines and Large Language Models (LLMs), as well as automatic classification systems. Skilled in integrating AI solutions into production environments, with a focus on performance, scalability, and inference time reduction. Excellent ability to work in interdisciplinary teams and manage complex technical projects while meeting strict functional and time objectives.

Professional Experience

Research Thesis: Neural Network for Classifying Variable Star Light Curves, University of Padua, Italy Oct 2024 – Mar 2025

- Analyzed and implemented two hybrid architectures combining CNNs and LSTMs for variable star classification, based on in-depth review and integration of techniques from multiple state-of-the-art publications
- Achieved consistently over 95 % F1-score across all experiments, with peak over 99%, using $\Delta m \Delta t$ image encoding and reconstructed light curves from the ZTF dataset, while assessing trade-offs between accuracy and computational efficiency

Full Stack Developer, ITReview, Padua, Italy Oct 2023 – Dec 2023

- Developed full-stack web features using React for the frontend and Node.js with MongoDB and SQL on the backend; created reusable components and integrated RESTful APIs to deliver scalable user interfaces
- Collaborated in code reviews to elevate code readability and maintainability, implementing best practices and optimizations that reduced database response times by approximately 20%

Software programmer Intern, AppLibra s.r.l, Thiene, Italy Sep 2021 – Dec 2021

- Managed the ERP transition from Navision to Dynamics 365, including hands-on development in both environments to deliver tailored software solutions that improved data consistency and process automation
- Architected and implemented Docker-based deployment systems, streamlining delivery pipelines to accelerate software distribution by 50% and significantly reducing infrastructure downtime through containerized service management

Data Analyst, ULSS 7 Pedemontana, Thiene, Italy Jun 2015 – Aug 2015

- Led the deployment of a digital signature system across the regional healthcare network, enabling real-time data capture and analysis, ensuring compliance with healthcare data governance and enhanced document security
- Designed and executed automation workflows that eliminated manual errors, accelerated processing times by 3–4×, and delivered instantly accessible, shareable data across the network, boosting overall efficiency

Education

MSc in Computer Engineering: Artificial Intelligence and Robotics (93/110) University of Padua, Italy Sep 2022 – Mar 2025

- Relevant Modules: Machine Learning, Artificial Intelligence, Computer Vision, Intelligent Robotics

Erasmus+ Computer Science: Artificial Intelligence University of Cyprus Jan 2024 – Jun 2024

- Relevant Modules: Natural Language Processing, Entrepreneur AI, AI in medicine

Ba in Computer Engineering (85/110) University of Padua, Italy Sep 2016 – Mar 2022

- Relevant Modules: Software Engineering, Databases, Operating Systems, Data Structures & Algorithms

Additional Experience/ Projects

Erasmus Hardgainer Jan 2024 – Jun 2024

- Parameter-efficient fine-tuning (LoRA) of Mistral 7B Transformer LLM with Hugging Face, including consistent tokenizer initialization and data preprocessing, executing structured prompt engineering workflows to develop a lightweight generative QA system optimized for memory-constrained environments, with evaluation metrics BLEU 62%, ROUGE-1 81%, METEOR 78%

Project Leukemia Jan 2024 – Jun 2024

- Designed a robust leukemic cell classification neural network using OpenCV (cv2), combining data augmentation with handcrafted feature extraction; optimized hyperparameters via GridSearch, reaching an F1-score of 84.66%

Technical Skills and Languages

- Program Language: Python, Java, C, C++, C#, JavaScript, SQL, HTML, PHP, C/BASE, C/AL, MATLAB, ROS, R
- IT knowledge: Tensorflow, Numpy, Pandas, Scipy, Matplotlib, Keras, Torch, scikit-learn, Apache Spark, Github & MLOps
- Languages: Italian (mother tongue), English (C1) and French (A2)
- Certification: OCI AI Foundations Associate, OCI Generative AI Professional

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