

## SUMMARY

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Research Engineer at Huawei Paris studying episodic memory and continual learning in LLMs. Previously developing AI agents for enterprise customers (Salesforce). Background in trustworthy AI for cancer prognosis (IRCCS Milan). 4 peer-reviewed publications (IEEE EMBC, ESMO AI, ECAI, ECML PKDD). MSc 110/110, BSc 110/110 cum laude, Alta Scuola Politecnica.

## EDUCATION

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**MSc Computer Science and Engineering (AI) – Politecnico di Milano** Milan, Italy | 09/2023 – 12/2025

Final Grade: 110/110 highest honors. Alta Scuola Politecnica: Top 150 engineering students across Politecnico di Milano and Politecnico di Torino.

**BSc Computer Engineering – Politecnico di Torino** Turin, Italy | 09/2020 – 07/2023

Final Grade: 110/110 cum laude. Intraprendenti Honor Program: Top 200 engineering students at Politecnico di Torino.

## RESEARCH EXPERIENCE

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**Research Engineer – Huawei Paris Research Center** Paris, France | 10/2025 – Present

- **Co-authored 2 NeurIPS 2026 submissions** (currently under peer review).
- Designed and maintained training pipelines 1,000+ multi-GPU full fine-tuning runs for Mistral and Llama models using DeepSpeed ZeRO-2. Built gradient-tracking infrastructure to regularize fine-tuning and reduce catastrophic forgetting.
- Built an end-to-end synthetic data pipeline that generated 21K+ high-quality training samples and developed an LLM-as-judge evaluation system for automated quality filtering, achieving 98–99% agreement with human annotators across 500+ test cases.

**Graduate Student Researcher – National Cancer Institute (IRCCS)** Milan, Italy | 09/2024 – 12/2025

- **4 peer-reviewed publications:** IEEE EMBC 2025, ESMO AI 2025, AEQUITAS @ ECAI 2025, PharML @ ECML PKDD 2025.
- **Reviewer** for the 47th IEEE EMBC conference.
- Developed 2D/3D ResNet50 pipelines for 6-month survival prediction in advanced NSCLC (385 patients, Apollo11 cohort), achieving 0.74 F1 with explainability and fairness assessments.

**Graduate Student Researcher – NECST Lab** Milan, Italy | 11/2023 – 06/2024

- Built Aurora, a mental well-being mobile app powered by fine-tuned Meta-Llama-3.1-70B (AWS Bedrock), with serverless backend (Lambda) and React Native frontend. 27-participant user study.
- **Won Hack at the NECSTCamp** (36-hour AI hackathon).

## PROFESSIONAL & LEADERSHIP EXPERIENCE

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**Solution Engineer Intern – Salesforce** Milan, Italy | 09/2024 – 07/2025

- Built and demoed GenAI agents on the Agentforce platform for 5+ enterprise clients, integrating sales and service automation workflows under real security and compliance constraints.

**Software Engineer & Team Leader – Student Team Policumbent** Turin, Italy | 03/2021 – 10/2023

- Led 100+ students across 9 engineering divisions. **Won IHPVA World Human Powered Speed Challenge** 2022 & 2023, matching the **world record**. Built embedded telemetry (Raspberry Pi, ESP32, MQTT) for vehicles at 130+ km/h.

## PROJECTS

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**Autonomous Grapevine Pruning – PIC4SeR Laboratory / Yanmar S.P.A. (Alta Scuola Politecnica)** Turin, Italy | 2024 – 2025

- End-to-end computer vision pipeline for autonomous agricultural pruning. Built a Stacked Hourglass Network for vine keypoint detection, a graph-based topology reconstruction module, and heuristic pruning logic derived from expert agronomic knowledge. Achieved 95% precision, 90% recall, 92% F1 under variable real-world lighting and vine density conditions.

## PUBLICATIONS

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Trustworthy Assessment of 2D Model for Lung CT Scans. *IEEE EMBC 2025* (DOI: [10.1109/EMBC58623.2025.11254399](https://doi.org/10.1109/EMBC58623.2025.11254399))

CT-based 3D ResNet50 for Predicting Survival in NSCLC Patients. *ESMO AI 2025* (DOI: [10.1016/j.esmorw.2025.100335](https://doi.org/10.1016/j.esmorw.2025.100335))

Trustworthy Assessment of 2D Deep Learning Model for Lung CT Scans. *AEQUITAS @ ECAI 2025*

Trustworthy Evaluation of 2D Deep Learning Model for Lung CT Scans. *PharML @ ECML PKDD 2025*

## SKILLS

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**Programming:** Python, Bash, C, C++, Java, SQL. **ML/AI:** LLMs, ViTs, CNNs, Deep Learning, Neural Networks, Distributed Training, Continual Learning, NLP, Computer Vision, Model Evaluation & Benchmarking, Explainability, Post-training, Training & Data Pipelines.

**Frameworks & Libraries:** PyTorch, DeepSpeed, HuggingFace Transformers, TensorFlow/Keras, Scikit-Learn, Pandas, NumPy, JAX.

**Infrastructure:** AWS, Docker, Git, Linux, REST API. **Languages:** Italian (Native), English (C1 Advanced), German (A2 Goethe-Zertifikat).