Salvatore Alfio Sambataro

PhD Student @ University of Catania & AI Engineer & Researcher @ iCTLab s.r.l.

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Summary

I am a PhD student in Artificial Intelligence and Computer Vision at the University of Catania, with a strong focus on synthetic media forensics and deepfake detection. Currently, I work at iCTLab s.r.l., an AI research lab, where I combine academic research with practical applications in machine learning and AI. My research interests include the development of robust detection systems for generative models and synthetic content, with emphasis on real-world applications and generalization across different domains.

Education

PhD **University of Catania**, Artificial Intelligence — Catania, Italy, 2025 – present

MSc **University of Catania**, Computer Science (Laurea Magistrale) — Catania, Italy, 2023 – 2025

BSc **University of Catania**, Computer Science (Laurea Triennale) — Catania, Italy, 2020 – 2023

Experience

iCTLab s.r.l., AI Engineer & Researcher — Catania, Italy, Nov 2025 – present, 1 year

I work on both client-oriented AI projects and internal research initiatives within the AI team. My responsibilities include applying state-of-the-art machine learning and AI models to real-world use cases, designing custom modeling solutions, exploring different modeling strategies, prototyping innovative methods, and managing the full experimentation lifecycle. My work spans diverse domains (e.g., automotive), allowing me to apply AI and machine learning to real-world challenges.

iCTLab s.r.l., Internship — Catania, Italy, Jan 2025 – June 2025, 6 months

Master's thesis internship: research on image and video generation algorithms.

Awards

Premio Archimede XXII ed. 2026 (Master Degree) — 2026

The 'Premio Archimede' award is awarded annually by the Department of Mathematics and Computer Science, University of Catania, to the Master graduate in Computer Science who has achieved excellent results during their academic career and in their final thesis work (Academic Year 2024-25).
web.dmi.unict.it/it/notizie/premio-archimede-2026

Premio Archimede XX ed. 2024 (Bachelor Degree) — 2024

The 'Premio Archimede' award is awarded annually by the Department of Mathematics and Computer Science, University of Catania, to the Bachelor graduate in Computer Science who have achieved excellent results during their academic career and in their final thesis work.
www.unictmagazine.unict.it/premio-archimede-assegnato-ai-neo-dottori-sambataro-e-bonaventura

Publications

SynthForensics: Benchmarking and Evaluating People-Centric Synthetic Video Deepfakes Dec 2026

A people-centric benchmark for detecting synthetic video deepfakes: 20,445 videos from 8 text-to-video and 7 image-to-video open-source generators, paired with FF++/DFD real sources, two-stage human-validated and released in four compression versions with full metadata. Human raters prefer SynthForensics in 71-77% of head-to-head comparisons against nine existing synthetic-video benchmarks. Across 15 detectors and three protocols, face-based methods drop 13-55 AUC points (mean 27) from FF++ to SynthForensics, and a further 23 points under aggressive compression. Joint first authorship.

Roberto Leotta, Salvatore Alfio Sambataro, Claudio Vittorio Ragaglia, Mirko Casu, Yuri Petralia, Francesco Guarnera, Luca Guarnera, Sebastiano Battiato

arxiv.org/abs/2602.04939 (Advances in Neural Information Processing Systems (NeurIPS 2026), Evaluations & Datasets Track - Poster)

Adversarial Attacks on Deepfake Detectors: A Challenge in the Era of AI-Generated Media Nov 2026

AADD-2026, a competitive benchmark for evaluating adversarial attacks against deepfake detectors under realistic deployment conditions: synthetic images from five generative families, social-media-inspired processing, JPEG and JPEG-AI compression, and eight heterogeneous detectors. Ten teams submitted valid solutions; results show that accounting for compression and post-processing substantially improves transferability to unseen detectors, while DINOv2- and SigLIP2-based detectors are markedly more resilient.

Francesco Guarnera, Luca Guarnera, Andrea Montibeller, Salvatore Alfio Sambataro, Dario Samuele Pishvai, Ludovica Beritelli, Giovanni Puglisi, Zahid Akhtar, Giulia Boato, Sebastiano Battiato

doi.org/10.1145/3767308.3837702 (Proceedings of the 34th ACM International Conference on Multimedia (ACM MM 2026))

Languages

Italian
Native speaker

English
Fluent