

Donald Gera

 (+39) 3275952877  donalddgera0@gmail.com  [donald-gera](https://www.linkedin.com/in/donald-gera)  [donalddgera](https://github.com/donalddgera)

Education

- Polytechnic University of Milan - AIRLab** Feb 2026 - Present
Thesis - Working on VQA and Spatio Temporal Scene Graphs
- University of Trento** Sep 2024 - Present
MSc in Computer Engineering - Artificial Intelligent Systems (GPA: 3.8 / 4.00)
- **Relevant Coursework:** Machine Learning, Deep Learning, Natural Language Processing, Computer Vision, Autonomous Software Agents, Fundamentals of Artificial Intelligence.
- Ca' Foscari University of Venice** Sep 2021 - Jul 2024
BSc in Computer Science (GPA: 3.9 / 4.00)
- **Relevant Coursework:** Data and Web Mining, Database Systems, Data Structures and Algorithms, Software Engineering, Operative Systems, Formal Languages and Computability, Object-Oriented Programming.

Experience

- Cluster Reply** Aug 2024 - Present
Part Time - Backend | C#, D365/AX, SQL
- Developed C# customizations to deliver client-requested features, reducing manual effort by **15+ hours** per week through automation of key processes.
 - Resolved functional and performance bugs in test and production **30%** faster than role-level expectations using debugging, logs and SQL.
 - Collaborated on **4+** D365/AX projects, focusing on Finance, Supply Chain, and Manufacturing modules, leveraging C# and SQL.
- Ca' Foscari University of Venice** Feb 2024 - Jul 2024
Research Assistant | Python, scikit-learn, NumPy, Pandas, Matplotlib, Z3 (SMT), Jupyter, Git
- Co-Authored verifiable ownership of tree-ensemble models by implementing a trigger-set watermark with only a 2% accuracy overhead.
 - Enhanced watermark robustness against removal attacks, leading up to **25%** reduction in attack success rates.
 - Established anti-forgery bounds using Z3 SMT solver; the best counterfeit achieved **14%** of the genuine signal and reduced test accuracy by **30-40%** percentage points depending on the test set.

Selected Projects

- DeliverooAgents** | JavaScript [CODE](#)
- Built two autonomous agents for a grid-based parcel-delivery simulation game using an event-driven client and BDI architecture.
- Few-Shot Adaptation for Vision-Language Models** | Python, PyTorch, Jupyter [CODE](#)
- Proposed GaCoCoOp with fixed visual attribute tokens for few-shot CLIP adaptation, improving novel class accuracy by **+6.31%** over CoOp and **+1.93%** over CoCoOp on Oxford Flowers dataset.
- Computer Vision Liquid Height Measurement** | Python, OpenCV, NumPy [CODE](#)
- Achieved **±3mm accuracy** in non-contact liquid measurement using pixel-to-metric ratio calibration and OpenCV checkerboard pattern detection for real-world dimension extraction.

Publications

- [EDBT 2025](#) **Watermarking Decision Tree Ensembles** [PDF](#) [CODE](#)
Stefano Calzavara, Lorenzo Cazzaro, **Donald Gera**, and Salvatore Orlando
28th International Conference on Extending Database Technology (EDBT 2025) — Barcelona, Spain — Mar 25-28, 2025

Extracurricular

- Competitive Programming** [ACCOUNT](#)
Competing on competitive programming contests on Codeforces, achieved the rank of *Specialist*.