Tommaso Calò

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EDUCATION BACKGROUND

Politecnico di Torino (PoliTo) — **Turin, Italy**
National Ph.D. program in Artificial Intelligence. — *Nov. 2021-Nov. 2024*
My research intersects Human-Computer Interaction (HCI) and Artificial Intelligence (AI), focusing on UI modeling and sketch-to-code translation. Since 2022, I have authored 7 peer-reviewed papers that have accumulated 36 citations.

Politecnico di Torino (PoliTo) — **Turin, Italy**
M. SC, Data Science and Engineering. — *Sept. 2019-Oct. 2021*
Final Grade: 105/110 (Completed during the COVID-19 pandemic)

Politecnico di Torino (PoliTo) — **Turin, Italy**
B. SC, Engineer Management — *Sept. 2015-Mar. 2019*

Liceo Ludovico Ariosto — **Ferrara, Italy**
High School, Scientific Diploma — *Sept. 2010-Aug. 2015*

PROFESSIONAL EXPERIENCE

Georgia Institute of technology — **Atlanta, USA**
Visiting Scholar — *Feb. 2024 - July 2024*
Conducted research on human-like learning in AI systems under the supervision of Christopher MacLellan, resulting in one paper accepted at L@S2024 and another under submission.

Fondazione ITS Mobilità Sostenibile, Aerospazio/Meccatronica Piemonte — **Turin, Italy**
Teacher — *Sep. 2023 - Dec. 2023*
Instructed a class of 30 students in Python programming with a focus on aerospace and mechatronics applications, resulting in an average final grade of 85% and a 90% course completion rate.

Politecnico di Torino — **Turin, Italy**
Teaching Assistant - Computer Vision — *Feb. 2023 - July 2023*
Supported 12 hands-on labs and provided instructional guidance to 80 students in Computer Vision, focusing on algorithm implementation and machine learning integration.

Politecnico di Torino — **Turin, Italy**
Teaching Assistant - Human Computer Interaction — *Sept. 2022 - Feb. 2023*
Led Human-AI interaction projects, guiding 50 students in developing and evaluating AI-driven user interfaces.

Magneti & Marelli (MM), R&D Center — **Cluj-Napoca, Romania**
Internship - Value Analyst — *Aug. 2018 - Nov. 2018*
Identified inefficiencies and implemented process optimizations in software design, achieving a 15% reduction in resource waste.

GENERAL EXPERIENCE

Students Team: Squadra Corse Polito — **Turin, Italy**
Head of Management — *Sept. 2018- Sept. 2020*
In the first year, developed the electric vehicle prototype's business plan, achieving a 1st-place finish in Varano (Italy) and top-three placements in Prague and Barcelona. Promoted to Head of Management in the second year, secured a 20% increase in sponsor funding, revised the business plan, and boosted social media reach by 35%, resulting in a 15% rise in overall team visibility and engagement.

Exchange program in Hunter's Hill High School — **Sydney, NSW, Australia**
Exchange Student — *Jan. 2014- July 2014*
Completed a semester abroad focused on advanced mathematics, ranking in the top 5% of the class and qualifying for a higher-level course, while engaging with students from over 20 countries and adapting to three new languages, significantly broadening global perspectives.

CERTIFICATES AND LICENSES

- TOEFL IBT: 98/120 (C1 equivalent)

HONORS & AWARDS

- Top 10 finish in High School Mathematics Competition; advanced to provincial phase — *April 2015*
- First place in FSAE Italy (Varano) Electric Category — *July 2019*
- Winner of PwC Cybersecurity Challenge (PoliTo) — *Mar. 2020*
- Three-year PhD scholarship for merits — *Nov. 2021*
- Third place in Winter Sailing Championship Liguria di Ponente — *Dec. 2024*

PUBLICATIONS

- Calo', Tommaso; De Russis, Luigi. 2022. **Style-Aware Sketch-to-Code Conversion for the Web**. In Companion of the 2022 ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS '22 Companion). Association for Computing Machinery, New York, NY, USA, 44–47. https://doi.org/10.1145/3531706.3536462
- Fior, J., Cagliero, L., Calò, T. 2022. **Generating Comparative Explanations of Financial Time Series**. In: Chiusano, S., Cerquitelli, T., Wrembel, R. (eds) Advances in Databases and Information Systems. ADBIS 2022. Lecture Notes in Computer Science, vol 13389. Springer, Cham. https://doi.org/10.1007/978-3-031-15740-0_10
- Calo', Tommaso; De Russis, Luigi. 2022. **Creating Dynamic Prototypes from Web Page Sketches**. In Proceedings of the 1st ACM SIGPLAN International Workshop on Programming Abstractions and Interactive Notations, Tools, and Environments (PAINT 2022). Association for Computing Machinery, New York, NY, USA, 20–25. https://doi.org/10.1145/3563836.3568724.
- Calo', Tommaso; De Russis, Luigi. 2023. **Leveraging Large Language Models for End User Website Generation.** In End-User Development (Proceedings of the 9th International Symposium on End-User Development, Cagliari, Italy, June 6-8, 2023). Springer.
- Calo', Tommaso; De Russis, Luigi. 2023. **Towards A Visual Programming Tool to Create Deep Learning Models.** In Companion Proceedings of the 2023 ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS '23 Companion). Association for Computing Machinery, New York, NY, USA, 38–44. https://doi.org/10.1145/3596454.3597181.
- Calo', Tommaso; Maclellan, Christopher. 2024. **Towards Educator-Driven Tutor Authoring: Generative AI Approaches for Creating Intelligent Tutor Interfaces**. In Proceedings of the Eleventh ACM Conference on Learning @ Scale (L@S '24), Atlanta, GA, USA. Association for Computing Machinery, New York, NY, USA, 305–309. https://doi.org/10.1145/3657604.3664694.
- Calo', Tommaso; De Russis, Luigi. 2024. **Enhancing Smart Home Interaction through Multimodal Command Disambiguation**. In Personal and Ubiquitous Computing, Springer, 1–16. https://doi.org/10.1007/s00779-024-01827-3.
- Monge Roffarello, Alberto; Calo', Tommaso; Scibetta, Luca; De Russis, Luigi. 2025. **Investigating How Computer Science Researchers Design Their Co-Writing Experiences With AI**. Accepted at CHI 2025.
- Calo', Tommaso; De Russis, Luigi. 2025. **DeepFlow: A Flow-Based Visual Programming Tool for Deep Learning Development**. Accepted at IUI 2025.
- Calo', Tommaso; De Russis, Luigi. 2025. **MorphGUI: Real-time Natural Language Interface Customization with Large Language Models**. Submitted at IJHCS.
- Calo', Tommaso; De Russis, Luigi. 2025. **Advancing Code Generation from Visual Designs through Transformer-Based Architectures and Specialized Datasets**. Under Submission at EICS 2025.
- Calo', Tommaso; Maclellan, Christopher. 2025. **AI-Assisted Interface Design for Intelligent Tutoring Systems**. Under Submission at L@S 2025.
- Calo', Tommaso; Francesca, Russo; De Russis, Luigi. 2025. **GUI Representation Learning for Downstream Real-World Applications**. Under Submission at CHI LBR.