

Stefano Demarchi

CONTACT INFORMATION	DIBRIS - Viale Causa, 13 16145 Genova, IT	(+39) 01033 - 52150 stefano.demarchi@edu.unige.it github.com/sdemarch
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EMPLOYMENT AND EXPERIENCE	Università degli Studi di Genova <i>Adjunct Professor</i> 2024 B. Sc. course in “Principles and practice of Computer Science” An introduction to Computer Science and Python programming for first year students in Electrical Engineering. <i>Post-Doc Researcher</i> 2022 - Present <i>PhD student</i> 2019 - 2022 Study and development of AI techniques for the formal verification of Neural Networks, part of the NeVerTools development team. Teaching support activities for an introductory course to Computer Science and Python programming. Università degli Studi di Sassari Athena Sardegna <i>Research Engineer</i> 2018 - 2019 Development of a backend framework for a commercial platform (PILOW), research and design of optimization algorithms for logistics. AI-Lift <i>R&D collaborator</i> 2017 - 2019 Part of the development team of LiftCreate , a tool for the design of elevator systems enabled by AI techniques.
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EDUCATION	Università degli Studi di Genova, Genova, IT Ph.D in Computer Science, May 2023 <i>Experimenting with Constraint Programming Techniques in AI: Automated System Design and Verification of Neural Networks</i> M.Sc. in Computer Engineering, October 2018 <i>Product Configuration for Complex Systems: a case study in Computer-automated Design of Elevators</i> 108/110 Université de Technologie de Compiègne, Compiègne, FR European Master in Complex Systems in Interaction, September 2018 Double-degree program in collaboration with Università degli Studi di Genova A, mention
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PROGRAMMING AND SOFTWARE	Programming: Python, Java, C, MATLAB Frameworks: PyQt5/6, SPRING Java, Vaadin Markup: L ^A T _E X, HTML5, CSS Environments: Microsoft Windows, Ubuntu Linux, Microsoft Office Suite, Visual Studio, IntelliJ IDEA, PyCharm, mySQL, GitHub
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LANGUAGES	Italian:	Mother tongue		
	English:	Fluent	B1 (certificate)	C1 estimated
	French:	Fluent	B1 (certificate)	C1 estimated
PUBLICATIONS	S. Demarchi, D. Guidotti, L. Pulina and A. Tacchella, <i>Supporting Standardization of Neural Networks Verification with VNN-LIB and CoCoNet</i> , in Workshop on Formal Methods for ML-Enabled Autonomous Systems, FoMLAS 2023, Paris, France, July 17-18, 2023.			
	S. Demarchi, <i>Experimenting with Constraint Programming Techniques in Artificial Intelligence: Automated System Design and Verification of Neural Networks</i> , PhD Thesis, 2023.			
	D. Guidotti, S. Demarchi, <i>Counter-Example Guided Abstract Refinement for Verification of Neural Networks</i> , in Cyber-Physical Systems Summer School workshop, CPSWS 2022, Pula, Italy, September 19, 2022, Proceedings, 2022.			
	S. Demarchi, D. Guidotti, A. Pitto and A. Tacchella, <i>Formal Verification of Neural Networks: a Case Study about Adaptive Cruise Control</i> , in International Conference on Modelling and Simulation, ECMS 2022, Aalesund, Norway, May 30th-June 3rd, 2022, Proceedings, 2022.			
	G. Cicala, S. Demarchi, M. Menapace, L. Annunziata and A. Tacchella, <i>A Comparison of Declarative AI Techniques for Computer Automated Design of Elevator Systems</i> , in Intelligenza Artificiale 16 (1), 131-150, 2022			
	S. Demarchi, M. Menapace and A. Tacchella, <i>Automated Design of Elevator Systems: Experimenting with Constraint-Based Approaches</i> , in International Conference of the Italian Association for Artificial Intelligence, AIxIA 2021, Online, Proceedings, 2022.			
	S. Demarchi, M. Menapace and A. Tacchella, <i>Automating Elevator Design with Satisfiability Modulo Theories</i> , in IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2019, Portland, Oregon, November 4-6, 2019, Proceedings, 2019.			
HONORS AND AWARDS	S. Demarchi, <i>Automated Design of Complex Systems with Constraint Programming Techniques</i> , in Cyber-Physical Systems Summer School workshop, CPSWS 2019, Alghero, Italy, September 23, 2019, Proceedings, 2019.			
	Best Paper award at the ECMS 2022 Conference			
	Best “Creative Lab Idea” award at the CPS 2022 Summer School			