Stefano Demarchi

Contact Information

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github.com/sdemarch

Employment and Experience

Università degli Studi di Genova
PhD student 2019 - Present
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**
Research Engineer 2018 - 2019
Development of a backend framework for a commercial platform (**PILOW**), research and design of optimization algorithms for logistics.

AI-Lift
R&D collaborator 2017 - 2019
Part of the development team of **LiftCreate**, a tool for the design of elevator systems enabled by AI techniques.

Education

Università degli Studi di Genova, Genova, IT
M.Sc. in Computer Engineering, October 2018
Product Configuration for Complex Systems: a case study in Computer-automated Design of Elevators
108/110
B.Sc. in Electronics Engineering, March 2016
Realization of a parallel computing infrastructure based on Google Cloud Platform
88/110

Universitè 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**

Languages

Italian:	Mothertongue		
English:	Fluent	B1 (certificate)	C1 estimated
French:	Fluent	B1 (certificate)	C1 estimated

Programming and Software

Programming:	Python, Java, C++, C, MATLAB
Frameworks:	SPRING Java, VAADIN, PyQt5/6
Markup:	LaTeX, HTML5, CSS
Environments:	Microsoft Windows, Ubuntu Linux, Microsoft Office Suite, Visual Studio, IntelliJ IDEA, PyCharm, mySQL, GitHub

Publications

S. Demarchi, D. Guidotti, A. Pitto and A. Tacchella, *Formal Verification of Neural Networks: a Case Study about Adaptive Cruise Control*, 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, *A Comparison of Declarative AI Techniques for Computer Automated Design of Elevator Systems*, in Intelligenza Artificiale 16 (1), 131-150, 2022

S. Demarchi, M. Menapace and A. Tacchella, *Automated Design of Elevator Systems: Experimenting with Constraint-Based Approaches*, in International Conference of the Italian Association for Artificial Intelligence, AIxIA 2021, Online, December 1st-3rd, 2021, Proceedings, 2021.

S. Demarchi, M. Menapace and A. Tacchella, *Automating Elevator Design with Satisfiability Modulo Theories*, in IEEE International Conference on Tools with Artificial Intelligence, ICTAI 2019, Portland, Oregon, November 4-6, 2019, Proceedings, 2019.

S. Demarchi, *Automated Design of Complex Systems with Constraint Programming Techniques*, in Cyber-Physical Systems Summer School Workshop, CPSWS 2019, Alghero, Italy, September 23, 2019, Proceedings, 2019.

Honors and Awards

Best Paper award at the ECMS 2022 Conference