

Lorenzo Gerini

Ph.D. Student in Computer Science and Systems

Engineering

@ |



Work Experience

November 2023

Current

PhD Student, University of Genoa, DIBRIS

- › Ph.D. Student at the Department of Informatics, Bioengineering, Robotics, and Systems Engineering (DIBRIS), dedicated to researching and implementing novel interaction methods to advance Virtual Reality-based education and healthcare applications.
- › Teaching Assistant for undergraduate and graduate courses : "Algorithms and Object-Oriented Programming" (Biomedical Engineering), "Algorithms and Data Structures" (Computer Science), and "Augmented Reality" (Computer Science, graduate level).

January 2023

October 2023

Research Fellow, University of Genoa, DIBRIS

- › Research Fellow at DIBRIS focusing on studying and implementing passive haptics techniques for Virtual Reality.
- › Designed and implemented Virtual and Mixed Reality applications utilizing Unity and Vuforia Engine. Conducted experimental sessions to capture and analyze biomechanical data.
- › Co-supervised a Bachelor's Thesis in Biomedical Engineering titled "Analysis of Movement Smoothness in Virtual and Mixed Reality Systems".

January 2023

May 2023

Teacher, University of Genoa, UniGeSenior

- › Instructor for Computer Science Course (Intermediate Level) at UniGeSenior
- › Subjects include common mobile and desktop operating systems and applications for document creation and storage, like Google Docs and Google Drive
- › Emphasis on Online Security, empowering students to recognize phishing attempts and other threats

Education

› **Master's Degree in Bioengineering**, University of Genoa, 2019-2022

Thesis: Interacting with augmented objects in Mixed Reality : analysis of movements' smoothness from real to virtual Virtual and Mixed Reality • 3D Object Tracking • Biomechanical Analysis

› **Bachelor's Degree in Computer Engineering**, University of Pisa, 2014-2019

*Thesis: Development of an accurate model of meteorological parameters for a railway systems simulator within the Stingray project
Time Series Analysis and Forecasting • Synthetic Data Generation*

Language skills

Italian **Mother tongue**

English **C1**

Publications

1. Lorenzo Gerini, Giorgio Delzanno, Giovanna Guerrini, Fabio Solari, and Manuela Chessa. 2023. *Gamified Virtual Reality for Computational Thinking*. In Proceedings of the 2nd International Workshop on Gamification in Software Development, Verification, and Validation (Gamify 2023). Association for Computing Machinery, New York, NY, USA, 13–21.
2. Lorenzo Gerini, Fabio Solari, Manuela Chessa (2023). *Passive Haptic Feedback for More Realistic and Efficient Grasping Movements in Virtual Environments*. In Extended Reality. XR Salento 2023. Lecture Notes in Computer Science, vol 14218. Springer, Cham.
3. Lorenzo Gerini, Fabio Solari and Manuela Chessa, *A cup of coffee in Mixed Reality : analysis of movements' smoothness from*

real to virtual, 2022 IEEE International Symposium on Mixed and Augmented Reality Adjunct (ISMAR-Adjunct), Singapore, Singapore, 2022, pp. 566-569.