



# Riccardo Karim Khamaisi

AR&VR e .Net Developer

## Profile

PhD candidate in Mechanical Engineering with strong communication and organizational skills and a strong desire for further exploration. Co-creator of the Luxia project, where I am committed to implementing innovative software solutions that integrate user experience concepts and understanding of the psychophysical state of individuals in both industrial and everyday contexts through augmented/virtual reality technologies and wearable sensors. Currently looking for collaborations or new work experiences to start at the end of the PhD.

## Contacts

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**Nationality:** Italiana, Israeliana

## Education

- **Classical High School Muratori**  
*Classical Diploma, 90/100.*
- **Bachelor Degree,**  
*Bachelor degree in Mechanical Engineering, 110/110 cum Laude, University of Modena and Reggio Emilia.*
- **Master Degree**  
*Master degree in Mechanical Engineering, 110/110 cum Laude University of Modena and Reggio Emilia*
- **Authorization for the profession of Engineer**

## Skills

- Public speaking
- Critical thinking
- Leadership
- Team working
- Problem solving
- Responsibility

## Working Experiences

- 10/2015- 12/2015  
La piazzetta del Gusto, Nonantola, MO, Italy  
**Waiter**
- 2015 - 2021  
**Private teacher**  
Tutoring and support activities for classical and scientific subjects.
- October 2019  
La zucca felice  
**Waiter at Cersaie exhibition**
- 2020 - 2021  
X-in-the-Loop Simulation Lab, University of Modena and Reggio Emilia, Italy  
**Research Fellow**  
Implementation of augmented and virtual reality solutions for the industrial sector using the Unity 3D graphics engine. I have delved into Computer Graphics concepts. Analysis and evaluation of user experience through wearable sensors to enhance factory ergonomics and optimize processes and/or products. Basic usage of the Vicon hardware and software platform.
- 2020-2021  
ING FOR S.R.L., Reggio Emilia, RE, Italy  
**Technical collaborator**  
Technical collaboration to enhance production systems with a focus on Industry 4.0: mechanical design, selection of materials and mechanical components, as well as business relationships with manufacturers and/or industrial suppliers.



## Rewards

October 2021 | ADM  
International Conference, Rome  
**Honorable mention for  
Master's degree**



## Languages

- Italian (mothertongue)
- English (C1)
- German (B1)
- Arabic (A1)



## Software

- Visual Studio (.Net)
- Unity 3D
- Software CAD (Solidworks, Creo, NX)
- Pacchetto Office



## Coding

- C# (Intermediate)
- Python (Basic)
- Javascript (Basic)
- C++ (Basic)

2021-2022

University of Modena and Reggio Emilia

### Adjunct professor

Contract Lecturer for the teaching of the 6 CFU course in 'Industrial Technical Drawing' (ING-IND/15) at the Enzo Ferrari Engineering Department of the University of Modena and Reggio Emilia within the Bachelor's degree curriculum in Mechanical Engineering.

2021-On Going

X-in-the-Loop Simulation Lab

### PhD Candidate

PhD program focused on integrating the concept of Human-in-the-loop to optimize processes and products with a human-centered approach. Development of custom software solutions in the Unity 3D graphic engine and .Net environment to enhance industrial user experience through analysis of physiological signals and human-machine interaction

## About me

- I have gained a good knowledge of the English language, thanks also to a 6-month Erasmus period in England in the city of Exeter (South Devon). Currently, I am studying the Arabic language due to my family origins.
- I am the author of over a dozen scientific publications and have had the opportunity to participate in and present at several international conferences.
- Former scout and former volunteer of the Italian Red Cross in social services and emergency response.
- A music lover, I have been playing the saxophone for over ten years with a background in jazz studies and basic knowledge of piano and guitar. I have also delved into the world of audio recording.
- Avid hiker and enthusiast of various sports disciplines, I enjoy channeling my intellectual vigor into increasingly stimulating activities.
- Passionate about 3D printing and hobbyism.

## Further experiences

- Main referent of the Luxia project, classified as a finalist in the StartCup 2023 Emilia Romagna competition and awarded for social innovation. Participation in the National Innovation Plan held in Milan in December 2023
- Participation in the advanced course 'School in AI: Deep Learning, Vision, and Language for Industry' at the University of Modena and Reggio Emilia.
- Assistant for introductory courses and seminars on virtual and augmented reality using Unity 3D and Vuforia for companies.
- TECHNICAL WORKSHOP 'DESIGNING HUMAN-MACHINE INTERACTION FOR INDUSTRY 4.0' at the University of Modena and Reggio Emilia (2019).