**SOFTWARE TECHNICIAN in Mixed Reality Software Development**

*Project: "Sistemi Cibernetici Collaborativi – Robot Teleoperativo 2" (Collaborative Cybernetic Systems – Robotic Teleoperation 2) in partnership with INAIL*

*Commitment & contract: Employee, fixed term contract until the end of the project (31/12/2023)*

*Location: IIT - Center for Collaborative Technologies (CCT), Via Morego, 30, 16163 Genova GE*


**ABOUT US**

At IIT we work enthusiastically to develop human-centered Science and Technology to tackle some of the most pressing societal challenges of our times and transfer these technologies to the production system and society. Our Genoa headquarters are strictly interconnected with the other 11 centers around Italy and two outstations based in the US. We promote excellence in basic and applied research such as neuroscience and cognition, humanoid technologies and robotics, nanotechnology, materials for a truly multidisciplinary scientific experience.


**YOUR TEAM**

You will be working in a multi-disciplinary group, where researchers from a range of scientific and engineering backgrounds collaborate to create novel solutions to key problems in robotics.

The VICARIOS Lab is part of the Dept. of Advanced Robotics, directed by Prof. Darwin Caldwell. This large department focuses on an innovative, multidisciplinary approach to robot design and control, and the development of novel robotic components and technologies for applications in medical, surgical, and rehabilitation robotics, exoskeletons and force augmentation, manipulation and dexterous manipulators, telepresence and teleoperation, industrial automation and robotics, active perception and learning, inspection robotics, hyper-redundant robots, robot dynamics and "fast" robot and robots for hazardous environments.

The position is within the VICARIOS lab, coordinated by Dr. Nikhil Deshpande. This is an inter-disciplinary group, with experts in human-computer interaction, VR/AR, telepresence, control modeling, biomechanical simulations, and human factors. The research outcomes are targeted at simplifying the lives of human operators (industrial workers, emergency responders, frontline workers) through advances in HCI paradigms. This role aims at developing software and simulation with virtual / augmented / mixed reality systems for immersive 3D user interaction in telerobotics.

Your main responsibilities will be:

- Software development and programming in interactive virtual reality using Unreal Engine.
- Working with real-time systems, e.g., robots and cameras, to import and display data (robot motion, real-time video, etc.) in the virtual environment.
- Building and integrating robust systems within a multi-disciplinary team for real-time operation and demonstrating live systems with the funding agency.

## ESSENTIAL REQUIREMENTS

- Master's Degree OR excellent first degree and minimum 1 years' experience in computer science or related fields
- Required experience developing software for interactive and immersive user interaction systems using virtual reality, e.g., Unreal, Unity
- Experience with multi-threaded programming with OOP languages, e.g., C++, etc.
- Experience with version control software, e.g., git (GitHub, Gitlab, etc.)
- Good command of spoken and written English

## ADDITIONAL SKILLS

- Experience with Unreal Engine (both C++ and Blueprints) to develop engine plugins is a definite plus
- Familiarity with interactive and immersive mixed reality systems, e.g., Vuforia, Wikitude, ARCore, etc., is a plus
- Exposure to graphics such as rendering engines, shaders, 3D modeling is a plus
- Good communication skills
- Strong problem-solving attitude
- Spirit of innovation and creativity
- Good at time and priority management
- Ability to work in a challenging and international environment
- Ability to work independently and collaboratively in a highly interdisciplinary environment

## COMPENSATION PACKAGE

- Competitive salary package of international standards *(Salary can include bonus option depending on your role and contract)*
- Private health care coverage (*depending on your role and contract)*
- Wide range of staff discounts

## WHAT'S IN IT FOR YOU?

- An equal, inclusive, and multicultural environment.
- An open and curious environment that encourages you to mingle and collaborate.
- If paperwork is not to your liking, we are here to help. There is a specialized team working to help you with that, especially during your relocation.

- If you are an entrepreneurial or a business-minded person, you will find some exceptionally gifted professionals ready to nurture and guide you to attain your aspirations.
- If you want your work to have a real impact, in IIT you will find an innovative and stimulating culture that drives our mission to contribute to the improvement and well-being of society!

If you feel this whets your appetite for change, do not hesitate to apply!

*Please submit your application using the online form and including <mark>a detailed CV, university transcripts, and contact details of 2 referees</mark>. For questions, please contact Nikhil Deshpande (nikhil.deshpande@iit.it)*

*Application Link: https://iit.taleo.net/careersection/ex/jobdetail.ftl?lang=en&job=22000021*

*Application's deadline: <mark>April 15th, 2022</mark>*

*We inform you that the information you provide will be used solely for the purposes of evaluating and selecting professional profiles in order to meet the requirements of Istituto Italiano di Tecnologia.*

*Your data will be processed by Istituto Italiano di Tecnologia, based in Genoa, Via Morego 30, acting as Data Controller, in compliance with the rules on protection of personal data, including those related to data security.*

*Please also note that, pursuant to articles 15 et. seq. of European Regulation no. 679/2016 (General Data Protection Regulation), you may exercise your rights at any time by contacting the Data Protection Officer (phone Tel: +39 010 28961 - email:* dpo@iit.it *).*