

# University of Pavia

## Ph.D. School of Electrical and Electronics Engineering and Computer Science

# Seminar Online Introduction to Augmented Reality

## Piercarlo Dondi, PhD

University of Pavia Part 1 – January 19<sup>th</sup>, 2022, from 9:30 to 11:00

### Alessandro Gaggia, PhD

BeSharp

Part 2 – January 20th, 2022, from 11:15 to 12:45

Zoom Link: https://us02web.zoom.us/j/5686561330

#### Abstract:

In the last years, we assisted to a growing interest in Augmented Reality (AR) in several different fields, such as industry, medicine, gaming, advertising, or cultural heritage.

But what is AR really? How does it differ from Virtual Reality (VR) or Mixed Reality (MR)? How can it be used and how widespread is it nowadays?

This two-day seminar aims to answer these questions and to provide a theoretical and practical introduction to AR:

- <u>Part 1</u> will explore the history of this technology as well as the theoretical and technological bases.
- <u>Part 2</u> will provide a tutorial on how to build an AR application using Unity and the Vuforia library.

<u>Note for Part 2:</u> The lecture will be comprehensible even without the software, but it you want to interactively follow the tutorial and try the application, we suggest installing on your laptop both Unity (<u>https://unity.com/products/unity-student</u>) and Vuforia (<u>https://developer.vuforia.com/downloads/sdk</u>).

#### **Bios:**

**Piercarlo Dondi** received the MSc degree in Computer Engineering at the University of Pavia in 2008 and then he completed the PhD in Electronics, Computer Science and Electrical Engineering in 2012. He is currently Assistant Professor at the Department of Electrical, Computer and Biomedical Engineering of the University of Pavia.

His main research topics include image processing, machine learning, Human-Computer interaction, and 3D modeling.

**Alessandro Gaggia** received the MSc degree in Computer Engineering at the University of Pavia in 2009 and he then completed the PhD in Electronics, Computer Science and Electrical Engineering in 2013. He is currently working as Head of Software Development in BeSharp focusing on new Cloud Technologies through AWS Services.

His main responsibilities are sharing company knowledge across people in the companies, creating Serverless applications through Angular and CDK, and developing the open-source project Leapp.

**Organizer** Prof. Maria Grazia Albanesi **Ph.D. Coordinator** Prof. Ilaria Cristiani