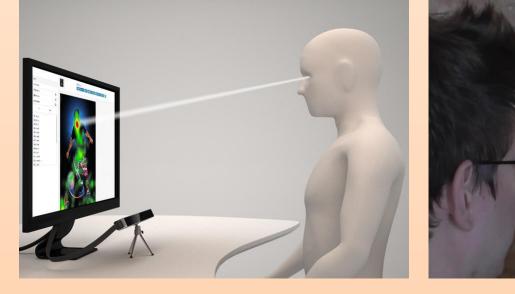


# Computer Vision & Multimedia Lab



## **Eye Tracking Applications**

#### **Gaze Input**



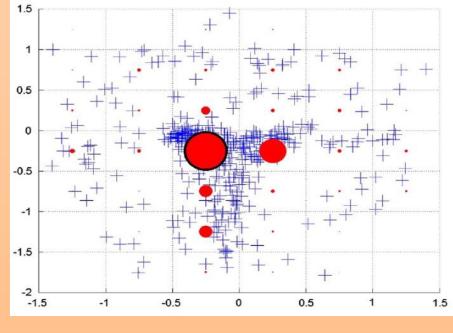




Using eye tracking as an assistive technology or as an additional input channel (e.g., to write, surf the web, play music, etc.)

#### **Gaze-based Soft Biometrics**

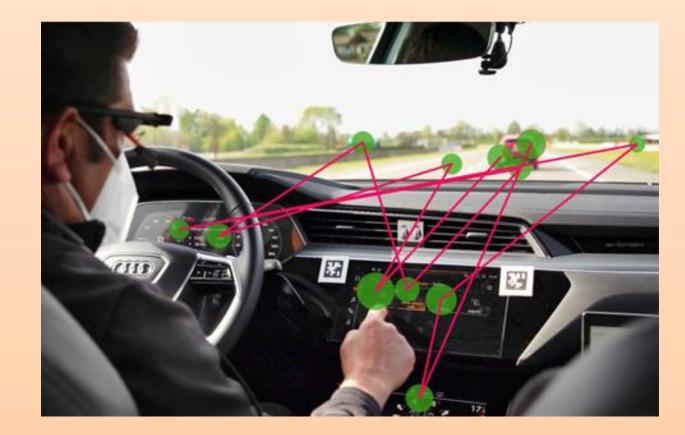


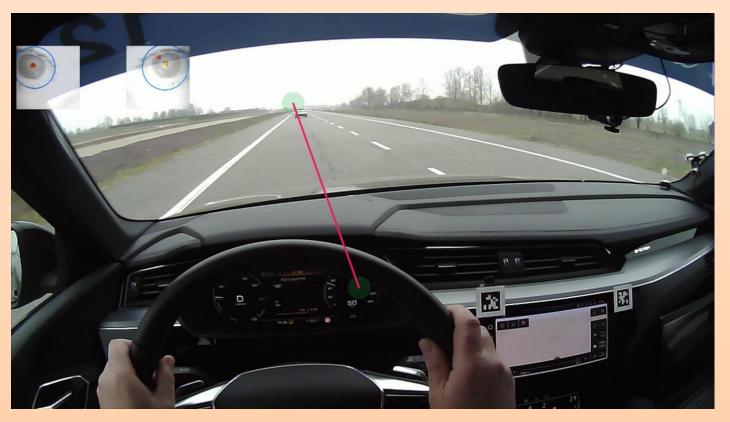




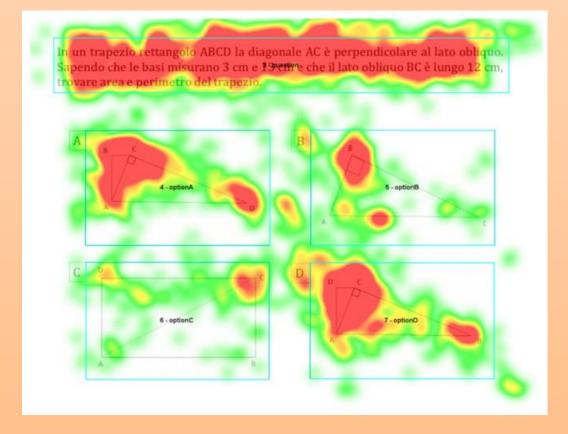
Identifying or verifying the identity of people from the way they look at specific stimuli (e.g., faces, shapes)

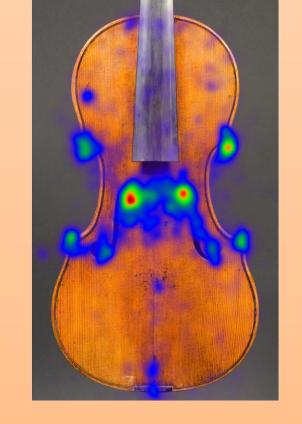
#### **User Behavior Analysis**









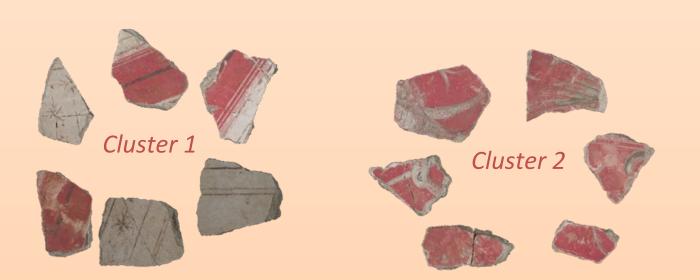


Analyzing and understanding the user's behavior and cognitive state while interacting with different kinds of visual stimuli

## Restoration of Damaged Frescoes

Fragments classification

Creation of synthetic datasets





Reconstruction from fragments







In collaboration with







## Al for Airport Operations

Event detection and tracking

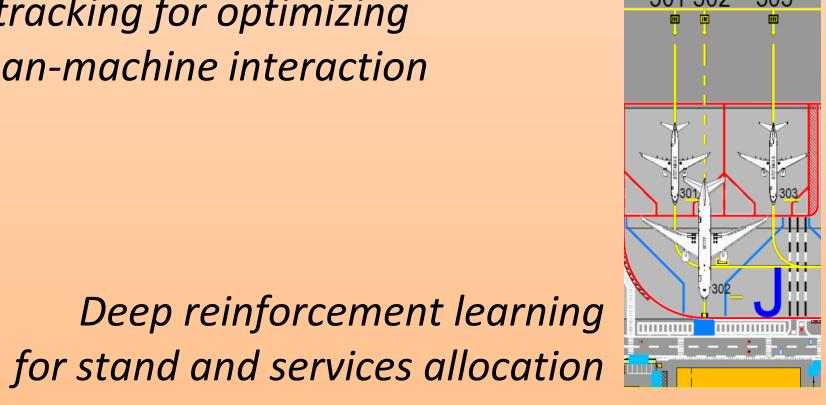








Eye tracking for optimizing human-machine interaction









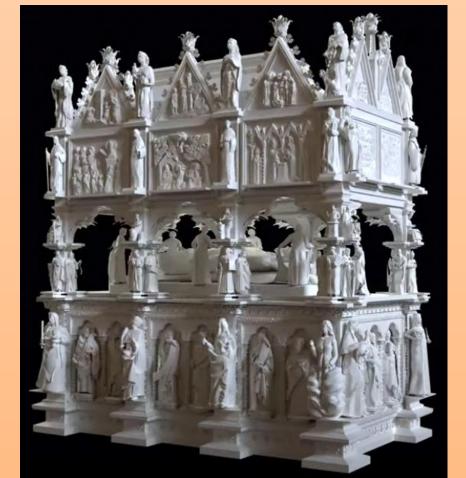
### 3D Modeling

Virtual reconstruction of Pavia in the Renaissance made by students





3D Modeling and printing of sculptures and tactile images made by students







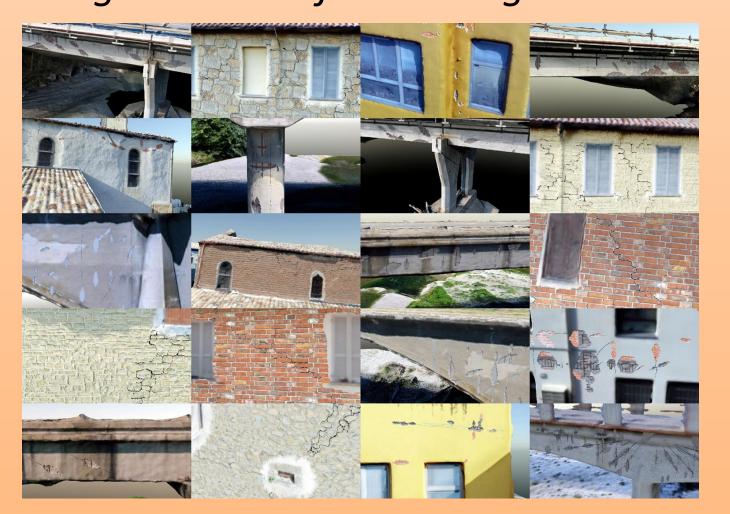
## Structural Damage Detection

Adding artificial damage on 3D models of real-world buildings and bridges





Render semi-synthetic images as data augmentation for training a DCNN



Damage detection on real videos acquired post-earthquake



In collaboration with



