

**MASTER THESIS** in Lausanne. Join our team as intern and you will find a young, dynamic and culturally diverse working environment.

# EXTENDING INNOVATIVE AUGMENTED REALITY SOLUTION FOR FIELD SERVICES

### DESCRIPTION

ELCA developed an innovative augmented reality solution allowing a mobile user to check underground infrastructure located in our cities. The application uses network information regarding gaz, electricity, water and multimedia to display, using augmented reality, the ducts, the pipes, the cables under the roads in real time allowing to save time when planning work on the street.

Application has been developed in Unity, taking advantage of ARKit and ARCode libraries provided by Apple and Google and is even now investigated to be ported for HoloLens device.

The goal of this internship is to enhance this solution by investigating new innovative features that can provide key benefits to users:

- Integrate mission data coming from other systems available (customer information, etc.)
- Sharing live view with AR elements through internet to be assisted by an off-the field expert
- > Display on the screen live advice that can be drawn by an off-the field spectator (for instruction or explanation)

For this internship, we will ask you to design & extend a mobile application relying on Unity to integrate these innovative features. This can include to develop a new mobile application, dedicated for off-the field users that can interact with the augmented reality application used on site (display and sharing drawing).

You will join our team of mobile developers, with the support of our UX team. You will work in a stimulating and highly skilled environment.

#### **OBJECTIVES**

- > Analysis & research of current solution provided on the market
- > Understand the key success factors of such eye tracking technology
- > Choose which use cases to work on, identify matching real business needs linked to them.
- > Design and develop a mobile application integrating eye tracking technology illustrated through the different use cases.

#### **KNOWLEDGE / SKILLS REQUIRED**

- Software engineering and programming,
- > Mobile development knowledge using Unity
- > Interest and experience in augmented reality is a plus
- > Sensibility to User Experience and front-end design

## **ABOUT ELCA**

With more than 900 employees, ELCA is one of the biggest independent Swiss IT solutions providers, and a leader in the fields of IT business consulting, software development and maintenance, as well as IT systems integration. The company, with offices in Lausanne, Geneva, Berne, Zurich, Basel, Paris, Madrid, Granada (near-shore), Ho Chi Minh City (VN) and Port-Louis (MAU) (offshores development) is privately owned. ELCA has an annual revenue of over 141 million Swiss francs.

**IF YOU ARE INTERESTED** in applying for this position, please send us your complete application (CV, cover letter, transcripts, diplomas and certificates).

