



VE Mobile Image Recognition

vemir.visualengines.com



Visual Engines s.r.l.

www.visualengines.com

Visual Engines (VE) is a company founded by the researchers of the Information Science and Technologies Institute (ISTI) of the National Research Council (CNR) in Pisa, together with Inera Ltd. VE develops technologies and software products based on automatic visual analysis, search and recognition. VE offers two products: VeMIR, a SDK to build mobile applications, and VePAIR, a visual retrieval engine to be used on large visual archives. Both solutions benefit from indexing strategies that are able to deal with a very large amount of images (hundreds of millions) with a very limited hardware, which makes it possible to serve visual queries with sub-second response time with a limited budget.

Applications that can be realized by using VE tools include Smart Access to Cultural Heritage, Smart Tourism, Visual Archives Management, Copyright Infringement Detection, Smart Shopping and Augmented Contents and Advertising. Efficiency and scalability, which are the main technological advantages of the proposed solutions, make it possible to manage a huge amount of data both on powerful servers and on small smart devices such as smartphones and tablets.



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VeMIR is a SDK to build mobile applications that enable user interaction via image recognition: users interact with mobile applications simply by pointing their smatphone camera to what interests them. Image recognition techniques of Visual Engines work both in an on-line and in an off-line setting. In the on-line setting, image recognition using server side capabilities makes it possible to build applications that recognize millions of images. In the off-line setting, image recognition is executed on the device itself and it is able to recognize up to thousands of images in real time. Examples of smart applications that can be developed by using VeMIR are:

- smart access to cultural heritage and museums;
- smart shopping (buying products by pointing the camera device to the product catalog);
- $\bullet \ augmented \ contents \ and \ advertising;$
- · mobile tourism.

Our Visual Recognition is highly fast, efficient and reliable.

It works well even:

- in case of distortions of the images;
- in an immersive real-life context;
- · with a bad lighting;
- with partially hidden images;
- with a wide range of images;
- · with physical objects;
- with videos (stream of images).

ReadyToGo and Recognizer Builder

VeMIR ReadyToGo is a general purpose application built with VeMIR technology. It's available for free on Google Play and on the Apple Store, and it will be on Windows Store soon. It includes a number of recognizers, built and continuously updated by the Visual Engines team. In conjunction with the Recognizer Builder tool, it enables everyone (also the users without computer knowledge or computer vision experience) to easily and freely create, manage, and distribute their own visual recognizers. VeMIR ReadyToGo can also be easily customized to be used in specific business contexts.