Tsinghua University - Tencent Joint Laboratory Attended SIGGRAPH Asia 2014

Tsinghua University - Tencent Joint Laboratory brought new technologies of Tencent street-view, wechat, BestImage to show on SIGGRAPH Asia 2014.

SIGGRAPH Asia 2014, the top conference on computer graphics, has been held in Shenzhen, which can be seen on line via Tencent Streetview .

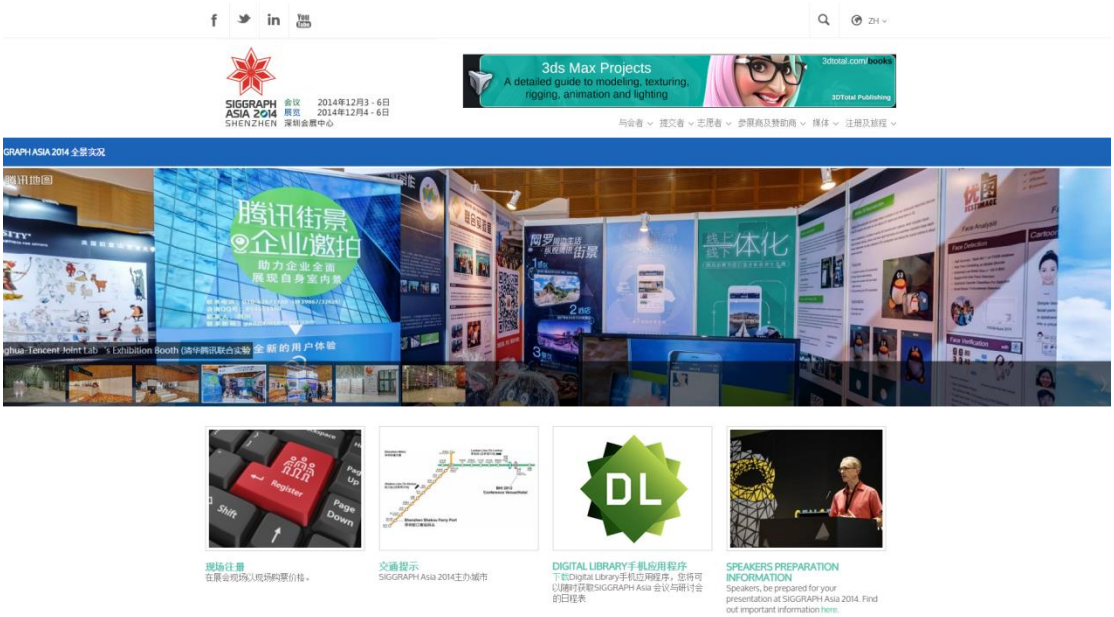
SGGRAPH Asia 2014 was held in Shenzhen Convention & Exhibition Center on Dec.3. Tencent Streetview has been introduced for conference presentation, which can be found on the home page of Tencent Map or the conference website.

By visiting the official website，following the official accounts，scanning the street view，as well as applying Tencent Map App, users could view, share and make comments on the street view wherever and whenever with their mobile devices.

Tencent Streetview has provided street view of 152 cities so far, and approximately covered 1500 tourist attractions, 1600 hotels, 500 real estates, and 700 universities.

Incorporating both technology and artistry, SIGGRAPH is the most authoritative exhibition of computer graphics and interactive technology, and has lead the development of computer graphics for years.

SIGGRAPH is annually held by ACM SIGGRAPH. It is the first time for China mainland to organize this conference since 1974.



Browse the website:
http://map.qq.com/#pano=100430K11412030SCENE004&heading=359&pitch=-1&zoom=1
Or please scan the QR code below:

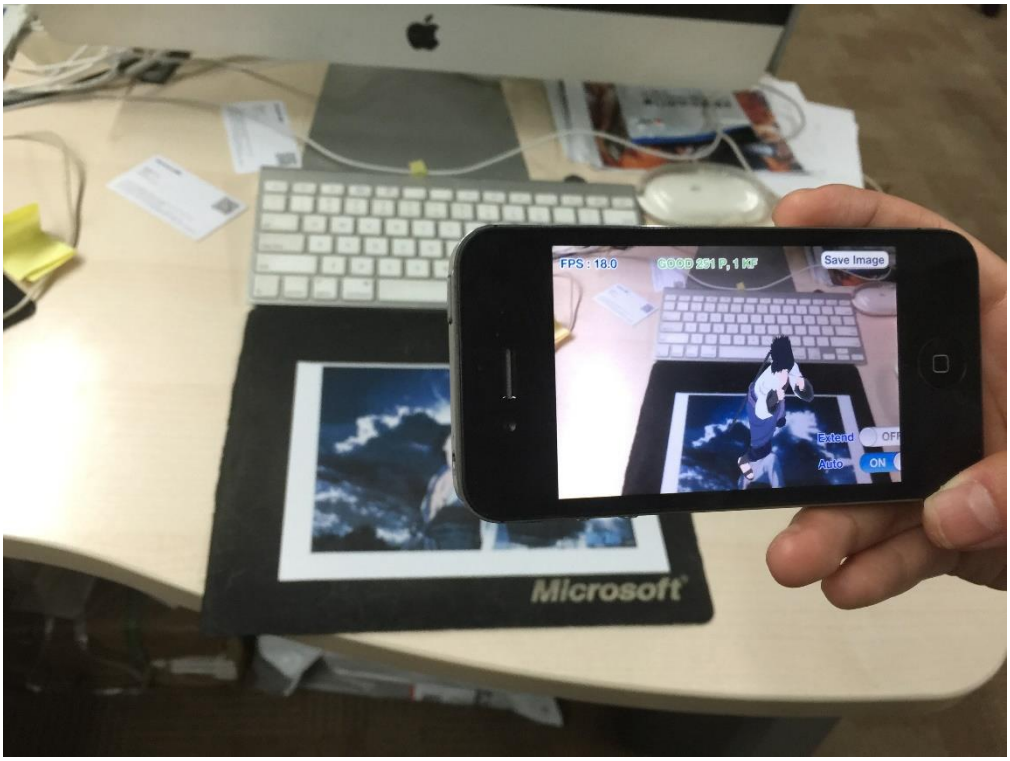
WeChat Augmented Reality

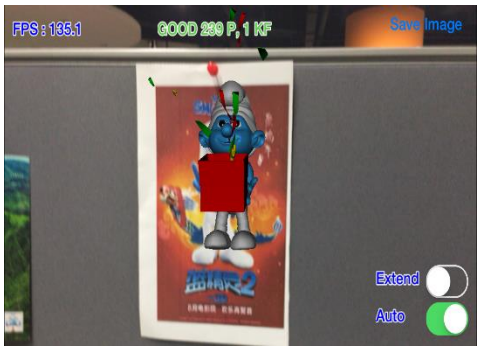
Augmented Reality (AR) has quickly become a very fantastic field in these years, it is especially useful in industries as advertising, video gaming, etc.

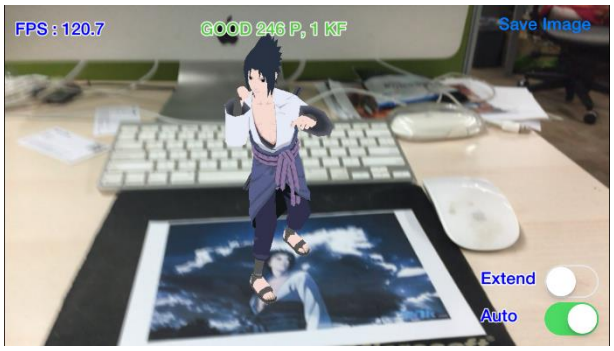
WeChat are working on both 2D and 3D mackerels AR technologies. For AR on planner objects, we detect and match natural feature for target localisation, and develop a fast yet robust patch-based tracking strategy to achieve real time performance on mobile devices. Our cloud based visual search framework can act as the initiate of AR scenario, which allows the merchants to customise their own AR-tagged images. Meanwhile, we are also working on SLAM based algorithms for more general 2D/3D, indoor/outdoor augmented reality.

Features

1. Fast & robust detecting and tracking method on mobile devices
2. Real-time mapping and tracking
3. Smooth integration with mobile visual search framework



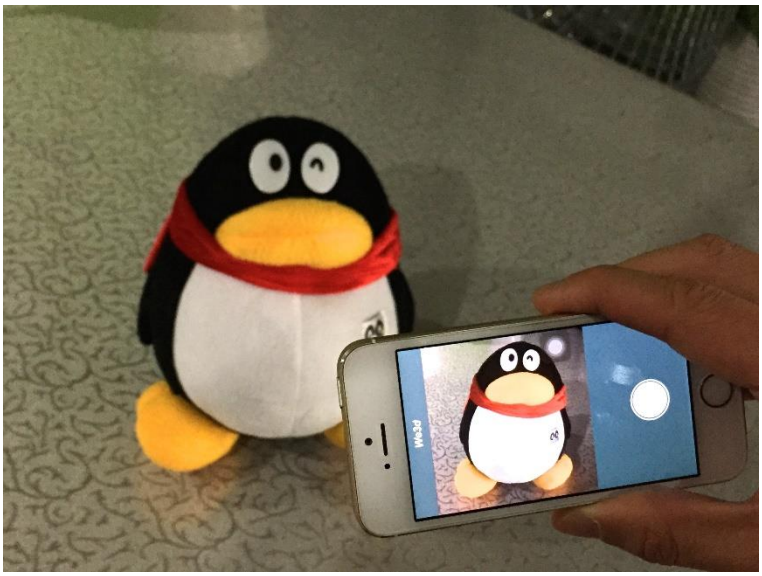


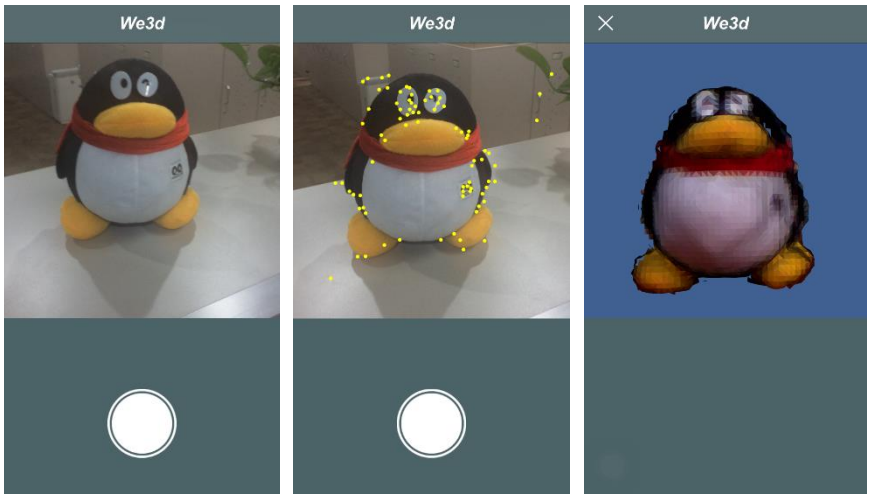


Wechat Mobile 3D Reconstruction

Mobile 3D reconstruction technology makes it possible to turn our monocular hand-held devices into 3D scanners, with which we can capture 3D objects and share them in 3D.

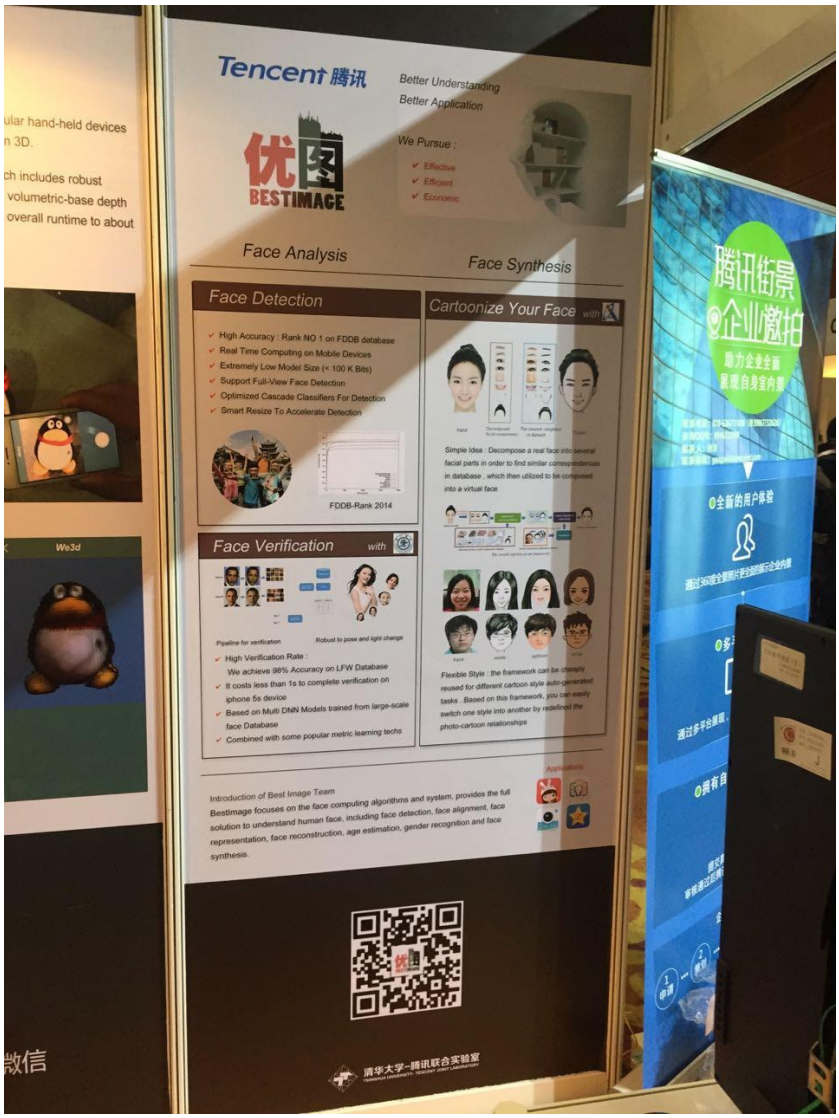
We are developing a complete on-device 3D reconstruction pipeline, which includes robust feature-based tracking, dense multi-view depth estimating and seamless volumetric-base depth fusing. Meanwhile, we also implement GPU acceleration and reduce the overall runtime to about several seconds.





Tencent BestImage team attends SIGGRAPH Asia 2014 conference

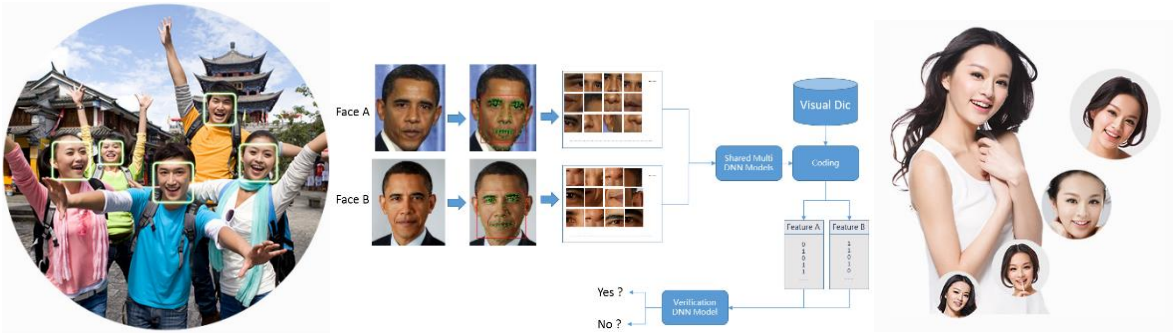
Tencent BestImage team attends SIGGRAPH Asia 2014 conference and shows the world's top face recognition technology and automatic cartoon stylization technology.



The two papers "Data-Driven Face Cartoon Stylization" and "Animated Construction of Ink-Wash Paintings" written by BestImage Team joint with CAS have been accepted by SIGGRAPH Asia 2014. And an oral presentation about " Data-Driven Face Cartoon Stylization" will be given on the conference.

The full-view face detection system powered by BestImage achieved No.1 result FDDB. And the

face verification algorithm, cooperation with Shanghai Jiao Tong University, got 98%+ accuracy on LFW database. Both face detection and verification technology can run on mobile devices with real time speed.



Tencent BestImage Team (http://bestimage.qq.com) is a technology oriented team which belongs to Tencent. It focuses on artificial intelligence, graphics and image processing area. It has deep understanding on face recognition, image understanding and has reached the level of world-class technology.