

Augmented Reality In Review

ITea&Coffee





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Lucas Farris – lfarris@softserveinc.com

Grew up in the 90s playing video games

Started programming in macromedia flash mx

Got into computer science university. Fell in love with Computer Vision

Entered the mobile industry



1) Live
Camera

2) Scene
Classification

3) Context
Retrieval

4) Graphics
Rendering

5) User
Display

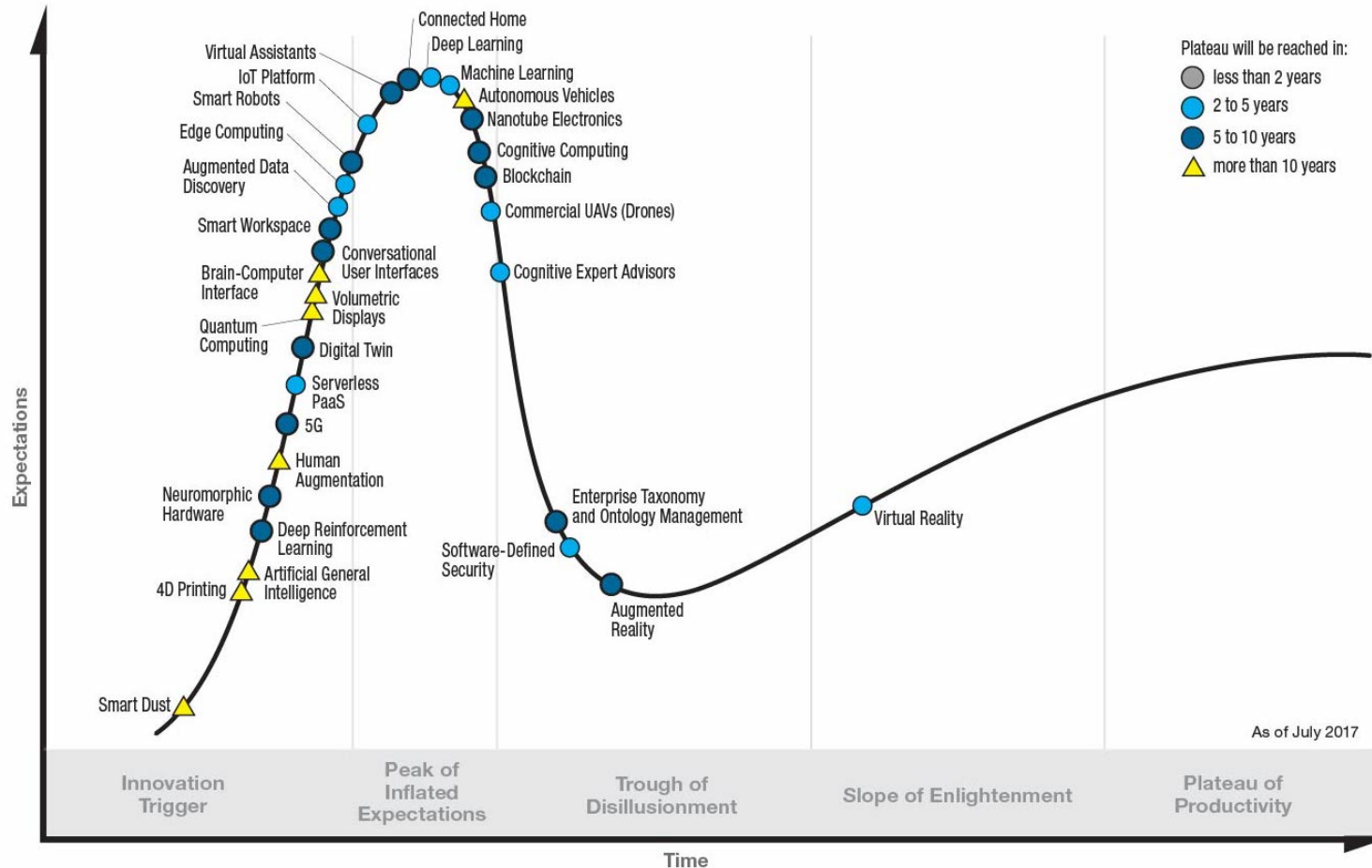
AR Types

1. Projection Based
2. Recognition Based
3. Location Based
4. Outlining AR
5. Superimposed AR

MARKET

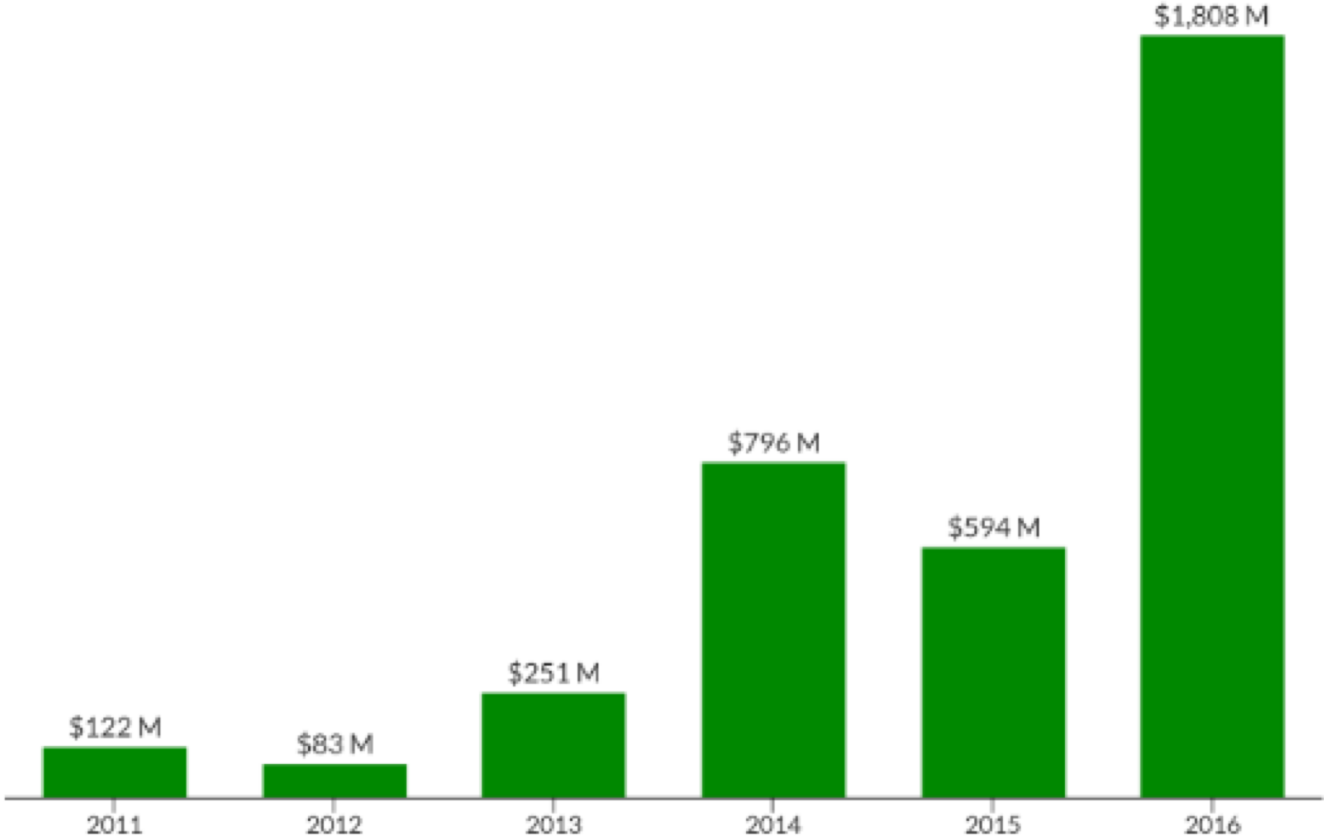
Gartner

Gartner Hype Cycle for Emerging Technologies, 2017



Greenlight

2016 VR/AR VENTURE FUNDING



INDUSTRY

Google I/O

Tango, ARCore, TensorFlow



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*What's New On Tango
May 2017, USA*

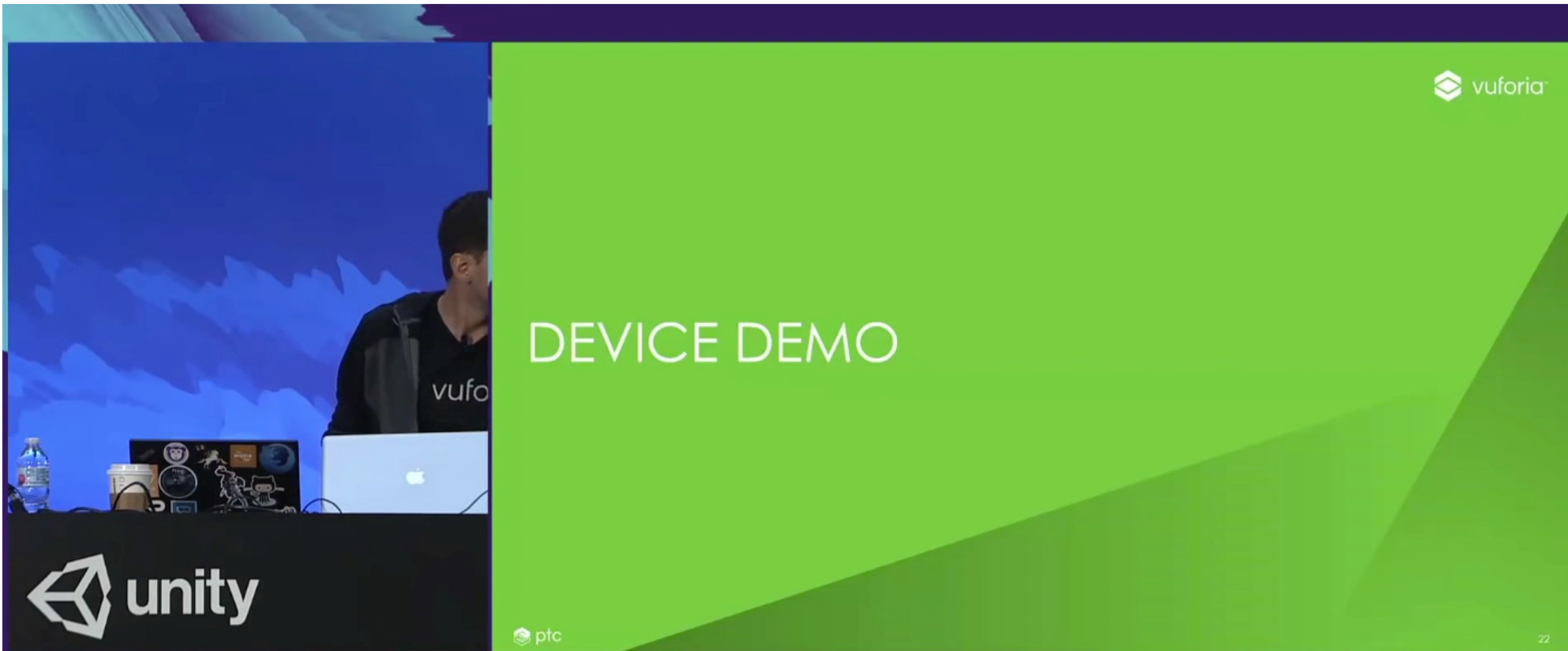
WWDC ARKit



THINGS
WITH APPI F

*Wingnut AR Unreal Engine Demo
June 2017, USA*

Unite Vuforia



The image shows a video frame from a presentation. On the left, a man in a black shirt with 'vuforia' on it is standing behind a podium. The podium has a laptop, a water bottle, and a coffee cup. The Unity logo is visible on the podium. The background behind the speaker is blue with a white geometric pattern. On the right, a large green screen displays the text 'DEVICE DEMO' in white. The Vuforia logo is in the top right corner of the screen, and the PTC logo is in the bottom left corner. The number '22' is in the bottom right corner of the screen.

*Intro to Vuforia AR Integration
October 2017, USA*

**Unite
Austin
2017**



Microsoft Mixed Reality

HoloLens

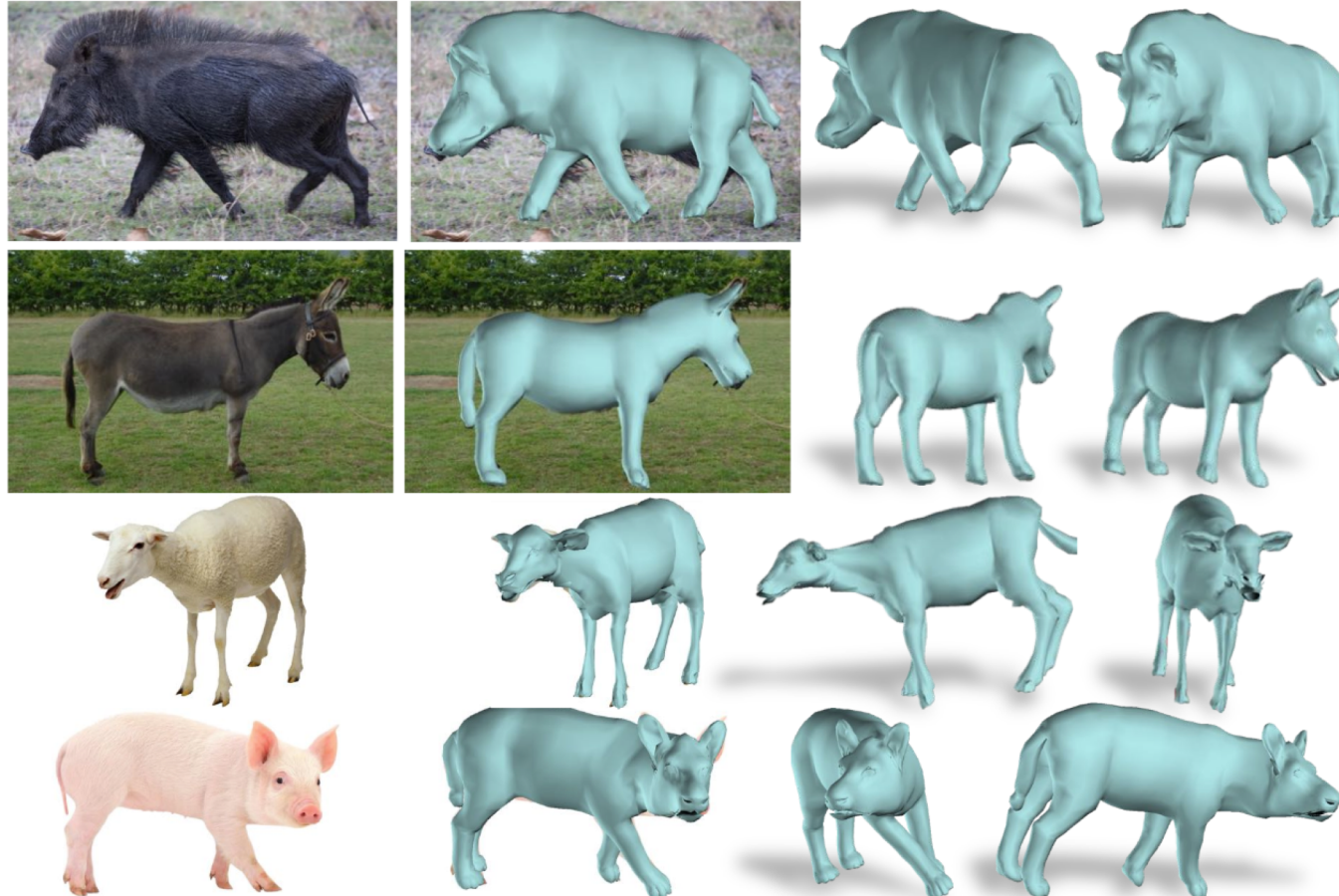
get ready



LET'S TAKE A LOOK AT WHAT'S ON THIS SIDE.

SCIENCE

Single-View 3D Reconstruction of Animals



Light Source Point Cluster Selection- Based Atmospheric Light Estimation

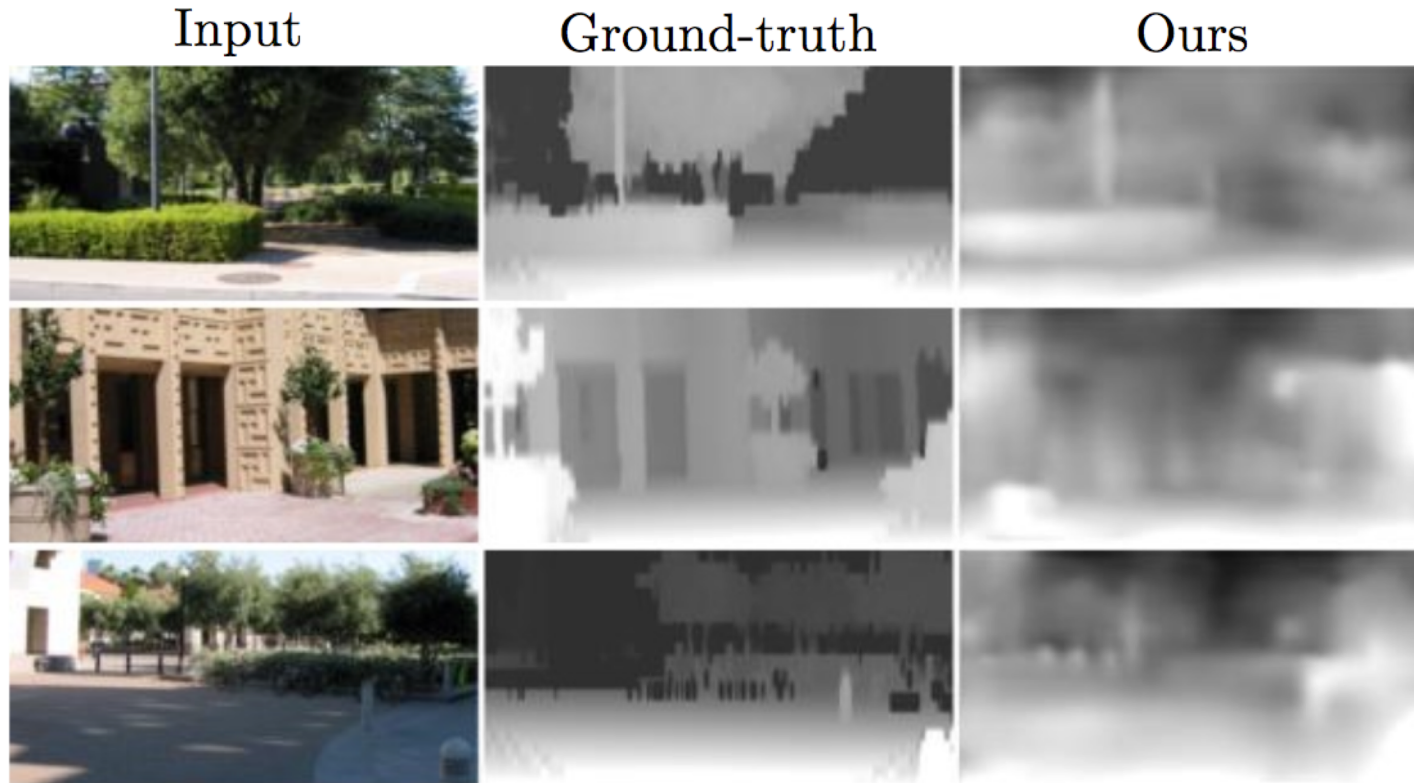


(e) Train



(f) Swan

Unsupervised Learning of Depth and Ego-Motion from Video



CHALLENGES

Real Time 3D Reconstruction

The following sequences show **real-time**
3D reconstructions captured live using
a commodity RGB-D camera.



Real Time Multiplayer Interaction



AR MULTIPLAYER

VIDEO GAME



Thank you

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See you on our next
meeting in April!

19 / 04 / 2018

