

# ARMeet: AR Data vizualization for meetings.

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## **1 Description:**

ARMeet is a mobile app used to easily visualize information contained in reports shared in meetings.

It's critical for everyone in a meeting to understand what a report contains. And the faster this task is achieved the better as users are able to make questions about the data contained in the report instead taking the time to understand the data itself in the meeting.

With the help of Augmented Reality, ARMeet aims to ease the understandment of the data contained in the report and to some extent comparte data in it with visualization techniques taking the report pages itself as image targets as anchor points to draw the data.

This project is aimed to be a proof of concept for ARMeet; the idea is to visualize the data contained in the final document report. The data planned to be used comes from a dataset called video games sales and ratings.

## **2 Project Concept:**

### **2.1 Environment:**

ARMeet is intended to be used indoors, most likely in conference rooms. Its main purpose is to enhance the understanding of reports in meetings to further the discussions on the data contained in the reports.

### **2.2 User interaction with the application:**

ARMeet interaction with the augmented objects is limited and its purpose is more for the data interpretation during meetings.

The way a user interacts with the application is through his personal phone pointing towards each of the report's pages and seeing the data being augmented. With some extra image targets the user can generate comparsions between targets.

### 2.3 Step by step usage:

Using ARMeet should be intuitive and easy to use, being said that here are the steps to use the application:

1. User opens the ARMeet app and points the camera towards any of the report pages and data gets augmented from the report pages.
2. With the center of the screen, the user can point towards parts of the data to get some relevant information from the report.
3. If the user decides to put an image target next to the augmented report page, then the visualized data reacts and a comparison is done with the image target that just appeared in the user's camera.
4. User then can compare and make conclusions on his own with the generated data.
5. Finally, the user can at any point move to another page and start the process all over again.

### 2.4 Resources to be used:

For this project I plan to use Vuforia for the Augmented Reality part with Unity3D for the rendering side and the dataset from kaggle called "Video game sales with ratings" from:  
<https://www.kaggle.com/rush4ratio/video-game-sales-with-ratings/>.

### 2.5 Target platforms:

I plan to target this app as a start for the *iOS* platform, and if there is time for the *Android* OS.

## 3 Risks:

There can be some issues when working on this project, next I will enumerate the most critical ones that I think will hamper the completion of the project:

#### **Multiple image targets visualized at the same time.**

I'm not sure how well multiple image targets work on my cellphone; at most I will be visualizing 3 image targets at the same time (the report page and 2 comparison image targets).

#### **Amount of image targets.**

I noticed that there are different platforms for each console; The risk here is having to use too many image targets; this will defeat the purpose to have a single report to see the data.

#### **Size of the data to visualize**

Right now the data to visualize is stored in a csv file of 500kb, but I'm not 100% sure how Unity can handle thousands of objects being rendered at the same time in a phone.

## 4 Deliverables:

This project output will be an application and a report (that will be used with the application to augment the data in it).