Overview

After looking through a few different alternatives, the best SDKs that I have found are Kudan and Vuforia. There are a few other SDKs out there such as ARToolKit and Wikitude, but the problems that they all have is that they are either underdeveloped, or really expensive. Wikitude looks like it is the best SDK available, but it is pricy.

Kudan and Vuforia

* Both of these SDKs are optimized for smaller objects, but this is a very common theme in all of the SDKs that I looked at.
* Kudan and Vuforia both have a lot of documentation, and plenty of tutorials available. They also both have their own forums that are relatively active.
  + Vuforia looks like its user base and documentation is a little bit better.
* Neither sdk has built in libraries that help with gps, but unity does have libraries to deal with this.

General Kudan and Vuforia Notes

* Kudan Notes
  + Link: <https://www.kudan.eu/kudan-sdk-features/>
  + Main rival of Vuforia
  + AR SDK
    - Markerless and marker based
      * Environment tracking
    - Low cost to memory
    - Supposed to be easy to develop in once learned
  + Languages supported
    - Java
    - Objective C
  + Compatibility
    - Ios
    - Android
    - Unity
  + Optimal tracking distance
    - 1.2 - 3.7 m
* Vuforia Notes
  + Link: <https://www.vuforia.com/content/vuforia/en.html>
  + AR SDK
    - Recognizes general object types (Box, Cylinder…)
    - text and environment recognition
    - can scan objects to create object targets
    - can use local or cloud storage
  + works well with unity
  + Occlusion Management
  + Compatibility
    - Ios
    - Android
    - Unity
  + Languages supported
    - c/c++
    - Java
    - Objective C++
  + Optimal tracking distance
    - .8 – 3 m

Conclusion

Vuforia looks like the better SDK. The API has more features, and it is better documented. The problem is that every SDK I could find, save for Wikitude, is not optimized for large objects such as buildings on campus, and none were meant to recognize objects from a larger distance I think that we can figure out some work arounds to fix this.