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I want to start work in/start learning about Augmented Reality, what is the best place to start?

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7 Answers



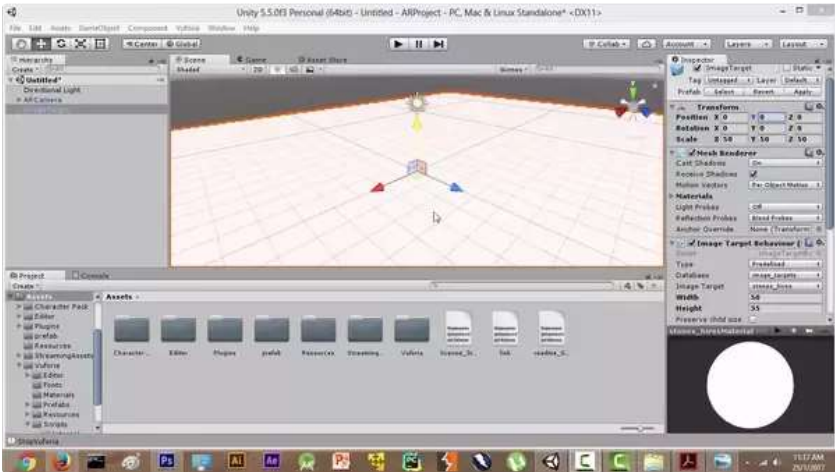
Attreya Bhatt, AR Application Developer

Answered Feb 2, 2017



I was always fascinated by the fact how do Augmented Reality applications worked! I mean you hold a camera. The camera projects a 3d model on the screen. But how do they actually worked and most importantly how do I make one?

So here is the secret. Most of the applications in app store made by people like you and me are made using 3 things. **Vuforia** (free) , **Unity** (free) and **knowledge** of how to put them all together! (time)



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(Source : Me)

The first time i made it it took me a lot of time to figure Unity out. Then later i developed a process using which it took me only 1 hour to make an Augmente...

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Gautam Bhatnagar, former Performance Architect at Intel (2010-2015)





really can know the answer to just yet.

IMHO, the best stepping stone to AR is VR. The technical challenges for each are quite similar, and I personally believe that the two will become one in the same in around a decade. Even if that's not the case, however, the tools from a development standpoint are pretty much the same as of now. The two leading AR headsets, Hololens and Meta, both have their SDK's built around the Unity engine. Even though we know very little about the course that AR will ultimately take, it's a safe bet that being familiar with developing with a 3D engine will be necessary, so I would start there. You don't even need any headset for that. If you want to build a crude, usable prototype, a Google Cardboard based app could be sufficient. It might not be as awe-inspiring as a Hololens app, but the fundamentals and development process will be essentially the same. If you can develop an app for the former, you can do so for the latter, at least at a basic level.

So I'd start out getting my feet wet with Unity, and ideally moving on to the Cardboard SDK if you have a phone that supports it.

1.3k Views · View Upvoters · Answer requested by Pranav Nair



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Chace Campbell

Answered Jul 11, 2016



I'm not sure what your professional background is, but if you're currently unable to get your hands on the tech I imagine that the next best thing would be to learn at least the basics of what knowledge would be required to successfully implement good AR/VR.

I'm by no means an expert on the topic but from what I've seen of it, so far, it has a huge emphasis on ux and ui design. That said, if you don't have the real tech, simply mock up what you think would be a good augmentation experience.

There's actually a plugin for sketch that allows you to build a quick VR resembling prototype that even...(more)



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Alejandro Franceschi, Creative at Facebook | Ads, Marketing, VR, AR, Video, EdTech





read here on Quora at: [Alejandro Franceschi's answer to What jobs are there in virtual reality?](#)

I consult for AR and VR companies from the USA, India, and China. I recognize that getting some types of hardware/software are going to be out-of-budget for many startups in those areas.

The answer to your query also depends on who you want to develop for at this time. For the foreseeable future, entertainment and education, along with medical, will be the biggest drivers for adoption - so I would focus any initial skill developments in those horizontals.

My other suggestion would be **not** to focus on development for those high-end devices, as 'sexy' as they may be. The reason for this is that just as much as they may be out of reach for parts of the world where the required investment is simply too high, the same can be said of the early adopters worldwide. Most of them are Developers, wanting to get in on the wave, just like you.

Wait a bit, they will not only become less expensive, they may be phased out altogether in favor of mobile devices that are adaptable to AR and VR.

Both those devices, are, as of this post, a very small sliver of the market, despite the advertising. I would honestly focus attention on *developing for mobile*.

Don't get me wrong, they're great devices, and the companies that make them are quite focused, but if you are a small company, it does not make fiscal sense to attempt making an exclusive application for them, unless it is something that ports across many devices.

While a higher-end Apple and/or Android DayDream phone can cost as much as an Oculus or Vive, most people are going to purchase an all-purpose device, as opposed to one that has a singular function.

Keep in mind also, that for those without a PC to match the necessities of the VR device, it is an *additional investment* of \$1K USD, or more — depending on what you want to do with the device(s). Again, this is not an investment that most can justify, unless it is something that pertains to work — which are most of the purchasers at this time.

Developing for AR and VR on mobile is much more practical, and has a wider install and user base, than either of those devices could possibly hope to have — even over the next 5 years or so.

For example, you could launch a simple VR experience right now on the Apple Store or Google Play, and reach tens of millions of users in an instant. You would not have that even if you merged the audiences for both devices, right now — it would only be a fraction, and therefore, unprofitable for you.

Further, with the release of the Google DayDream phone, which has Unity and Unreal Engine playback **native** to the OS, it is obvious that the long-play is for adaptive mobile devices (look at China, VR/AR is nearly only all mobile devices, not a specialty HMD). If you can make an app that the Chinese State approves, your audience reach would be even larger there than the rest of the world.



pixel density, and different display types, plus faster processors and GPUs, will enable mobile VR to rival the technology in those 'sexy' and high-end devices within a year or two.

If you have a company, I would encourage you to reach out to me on LinkedIn. If your group has the skills, perhaps I can partner you to a client, or a vendor who could use some outsourcing.

If you have any other questions, feel free to reach me directly. Connecting people and companies is one of the things I do.

Good luck!

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Semen Frish, Curiosity at it's best :)
Answered Jul 13, 2016



AR/VR/MR are first of all software, so You can try to start with with [Cardboard SDK](#) for VR and something like [ARToolKit](#) for AR that must work on nearly any hardware. The most affordable AR hardware looks like to be [Meta](#)

General math for graphics and game developers would be helpful.

Unity and/or Unreal Engine are welcome to help in AR/VR/MR development too.

1k Views · View Upvoters · Answer requested by Pranav Nair

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Dobrin Grancharov, Product Marketing Manager at Progress - UWP, Xamarin, WPF
Answered May 28, 2018



A couple of guys on my team were actually wondering the same thing, which in the end turned into a real-life functioning app! Apart from hitting the books (or google) and actually start work on your first app, it might be a good idea to explore an already finished project's source code and see what are the best practices and how certain elements of the UI were created. The app I mentioned is called [Progress HoloStock](#) and visualized BitCoin price stats in a few different views. It's free, including the source-code, and might just be the best starting experience. See how it looks and works be...(more)

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Joe Szalko, Eternal Student





At its core AR is simply informational overlay on real-time video.

In terms of technology all you will need to start is a PC (for programming) and a webcam (maybe even the one embedded in you PC)

What you need to work on is how to manipulate the webcam stream by adding information (either a box or text, or a static image with link). Whatever information you add will be up to you and your AR program.

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Kathy MacDonald, Teacher and mentor

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It seems the touching must have awakened you, because you remember it, correct? That said, I'm assuming your son has not witnessed or experienced this behavior before to your knowledge? The

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Lawrence Wolfinger

Answered 1h ago

If the head gasket gave out a day after you bought the car, then it is extremely likely

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Alisa Hindman

Answered 1h ago

Are you serious? That's called discipline honey. It's normal. In marching band when you're not putting in all your effort, you run laps. Lots of them. You do push

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