

Augmented reality (AR) is used in *Pokémon GO*, which merges worlds that are real and virtual, while virtual reality (VR) takes us into purely virtual worlds with tech like *Oculus Rift*. VR and AR are transforming how people learn play and experience the world around us, even in the medical field, Creating these experiences accessible for all levels of coding knowledge

Throughout this Expedition, you will LEAD YOUR LEARNING by fully engaging with the resources and activities. You will be asked to -



- **REFLECT** about your skills, learning goals, and purpose
- **STRETCH** your knowledge and skills through active learning
- **INNOVATE** and iterate solutions for real-world challenges
- **SHOWCASE** your innovations and learning in a dynamic way

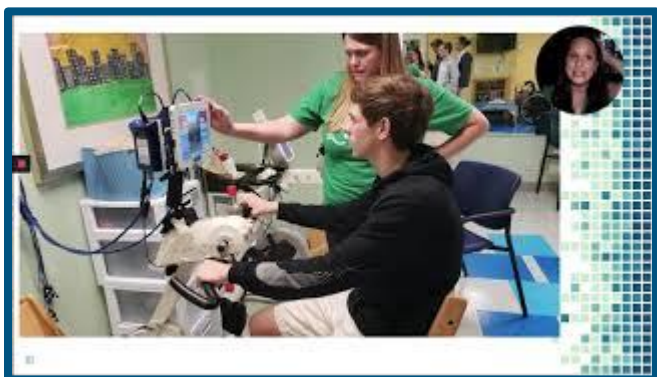
We encourage you to utilize our [Expeditions Idea Book](#) as you navigate this Expedition as a resource and space to get your creativity flowing, organize your ideas and research, and share your innovations and reflections.



Every so often you may see this briefcase icon. That indicates an opportune time to have a conversation with a mentor or local business leader to discuss industry trends, ideate solutions, solicit feedback, and/or present your project. (Speak to your educator if you need support making contact.)

## REFLECT

As you watch [the video](#), think deeply about these questions:



- What excites you about AR/VR?
- What are some other fields in which AR/VR can be used?
- What parts of this group's work can you see yourself doing?
- How can you use AR/VR to enhance or transform the human experience?

Meet this group of high school students who created a virtual reality experience for pediatric rehab patients at children's hospitals.

## WHY A CAREER IN AR/VR



According to Circuit Stream, “Meta, Apple, and Google job boards have added a new category under the opportunities – AR/VR jobs are enjoying a significant growth year over year and the market demands are thirsty for talent that has experience developing, designing, and researching these immersive technologies. Just think of how many times have you heard the word ‘metaverse’ in the last few months.”

Glassdoor shows that the median salary for careers in AR/VR is around \$102K!

*Whose expertise can you tap into to learn more about this career? Could they participate in an informational interview with you and your peers or serve as a mentor?*



## AR/VR PROVIDES VAST CAREER OPPORTUNITIES!

There are many specializations in the field of mixed realities. Take a look at some of these!



**SOFTWARE DEVELOPER** - produces immersive content, including virtual tours, interactive experiences, educational content, and entertainment applications



**AR/VR RESEARCHER** - explores new technologies, techniques and applications, and areas such as UX, human-computer interaction, computer vision, and more



**AR/VR ETHICIST** - focuses on the potential social, privacy, and moral implications of AR/VR technologies and systems



**AR/VR CONSULTANT** - provides expertise and guidance on AR/VR tech and helps identify and implement solutions, develop strategies, and optimize workflows



**3D ARTIST/ANIMATOR** - creates the 3D models, textures, and animations that bring AR/VR experiences to life



**AR/VR PROJECT MANAGER** - oversees the development and implementation of projects, coordinate with different teams, manage budgets and timelines, and ensure their successful completion

## STRETCH

Expand your knowledge and skills by trying some of these activities:

- Explore tutorials to get started with [Blender](#), then [watch this video series](#) on using Python to automate your art.
- Learn about [A-Frame](#), and build virtual reality experiences in the browser and learn VR in VR.
- Set up a VR project and implement simple interactivity with this [Unity Learn](#) activity
- Explore [Google's](#) immersive technology products, especially Arts and Culture, and take a virtual trip to Paris.
- Learn how AR, VR and MR are [redefining urban development and planning](#).

What are some other resources you can find that relate to your interests in AR/VR?



**Google**  
Applied Digital Skills

Learn job-ready skills from anywhere with Google's video- and project-based lessons, free of charge. No tech experience is required. Click [HERE](#) to learn more.

[Explore the geographic features of a place](#) by taking a virtual tour in Google Earth and then building a presentation about it in Google Slides.





## INNOVATE

Identify a problem in your community (school, local, state, or global) or this industry, then innovate ways solve it.

<p><b>DEVELOP A PRODUCT</b></p>	<p>Solve the problem you have identified using immersive technologies. (Consider designing, wireframing, or prototyping using platforms like <a href="#">Lucid</a>, <a href="#">ProtoPie</a>, or <a href="#">Figma</a>, or use platforms like Solid Works, Blender, TinkerCAD, or Autodesk (if you have free access).</p>
<p><b>FIX A FLAW</b></p>	<p>Perform some user testing on an existing AR/VR product and think of ways to remix and improve it. Is there a practice or product that has a flaw you'd like to fix? Consider diverse users, then use that feedback to improve and recreate a product.</p>
<p><b>BE A CHANGE-MAKER</b></p>	<p>Create a movement at your school or community to amplify this industry or the skills sets needed to succeed in this field. You can start a chapter for a Career &amp; Technical Student Organization (CTSO) or professional organization related to this field, host a college/career fair or local competition to highlight this industry. How about doing an altruistic project like the group in the video on the first page? The possibilities are endless!</p>



### PRO TIPS:

- If the choices above don't appeal to you, you can create-your-own or generate ideas by exploring hackathon sites like [hackclub](#) or [devpost](#).
- As you ideate, consider using [customer journey mapping](#).



*Is there a mentor or industry partner who can discuss the Engineering Design Process or UX Design Process to support your innovation? How can you gather mentor feedback as you iterate and innovate?*



## SHOWCASE

Once you complete your innovation, share your learning with the with an audience in one or more of these ways:

Why not plan a showcase where you and your peers can share presentations with the whole school, at a parent night, or for a panel of industry professionals?

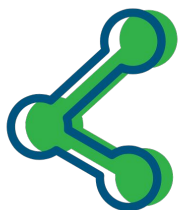


DIGITAL PORTFOLIO OR SITE	Create, code, or build a simple webpage to highlight your innovation, project, and learning journey. Consider bulb digital portfolios, Replit, GitHub, Google Sites, or Wix. Once it's developed, present it to an audience, and solicit feedback.
ONLINE MEDIA	Create a blog, vlog, or social media campaign (LinkedIn, YouTube, etc.) to highlight your innovation, project, and learning journey. Feel free to tag @nafcareeracads.
PITCH IT!	Pretend your audience is a group of investors. Pitch your innovation to them, sharing what you learned in the process. Allow for a Q&A, then solicit feedback on the quality of your project and/or pitch.



### PRO TIPS:

- Level up your project by entering a school or district competition or challenge. (Think the science fair, CTSOs, hackathons, etc.)
- Not interested in options from our Showcase menu? You can present your creations in a format of your choosing.



### STUDENTS, SHARE YOUR INNOVATION!

NAF would love to see your creation! After you get your educator's permission, submit yours [HERE](#). We may highlight you on social media!

(We WILL NOT share your work without your educator's and your approval.)