User Interfaces for VR/AR

Topic Choice

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Advancements in Augmented Reality (AR) and Virtual Reality (VR) technology has skyrocketed since 2016 becoming easier to use and more comfortable to wear for the general population. Today we see AR technology used in smart phones, such as Pokémon Go and Snapchat, and VR technology used in standalone head-mounted displays like the Oculus Quest and HTC Vive. As growth continues in the industry, so will the need to have robust interfaces that anyone at any age can easily understand. However, designing and implementing user interfaces for these devices isn’t as straightforward as you might think, requiring many advanced computer vision and machine learning algorithms to map the world around them. How can we design effective user interfaces that can immerse a user into a virtual world or allow them to interact and gain useful information about the world around them? Our research paper will explore this important question by looking into the current technology available to us today, plans and ideas for innovations that will propel the technology forward, and the current outlook of what it can possibly be in the future.