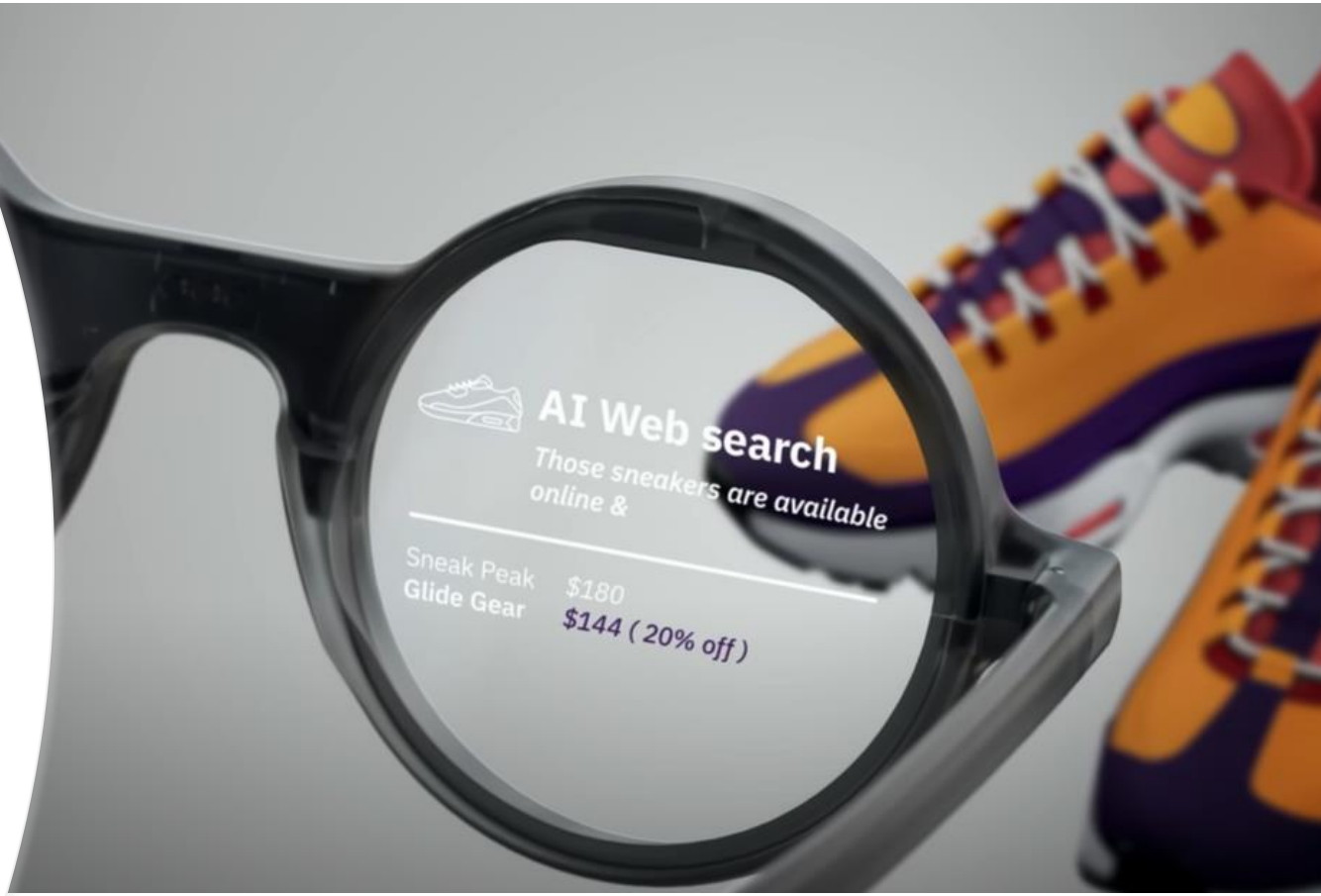
Lumen: AI enhanced Smart Holographic Glasses



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Problem Statement

Introducing the ultimate all-in-one solution for all: **LUMEN** the Personal Assistant Smart Glasses with an enhanced**,** personalized **GenAI** assistant. Say goodbye to the hassle of juggling multiple devices and professionals for different tasks—now, everything you need can be done through **AI Smart Glasses.**

Imagine having the power of a software engineer, data analyst, market researcher, personal assistant, and more, all at your command. With our revolutionary smart glasses, you can effortlessly tackle complex coding tasks, analyze vast datasets, conduct comprehensive market research and much more.

But that's not all. Our smart glasses go beyond the realm of traditional computing by offering hands-free interaction through **gesture , voice controls** and **holographic display**. Whether you're booking tickets for a show, managing your calendar, or planning your next big event, our GenAI assistant has you covered every step of the way.

And let's not forget about the personalized touch. From apparel advice or tailored customer emails, our assistant leverages cutting-edge AI technology to understand your unique preferences and needs, delivering an unparalleled level of customization and efficiency.

Say hello to the future of productivity. Say hello to **LUMEN**, Personal Assistant Smart Glasses—a device that empowers you to conquer any task with ease.

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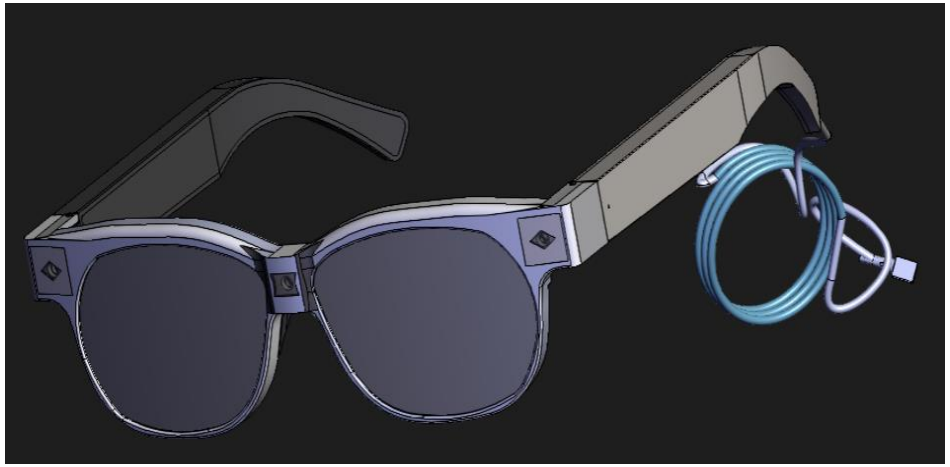
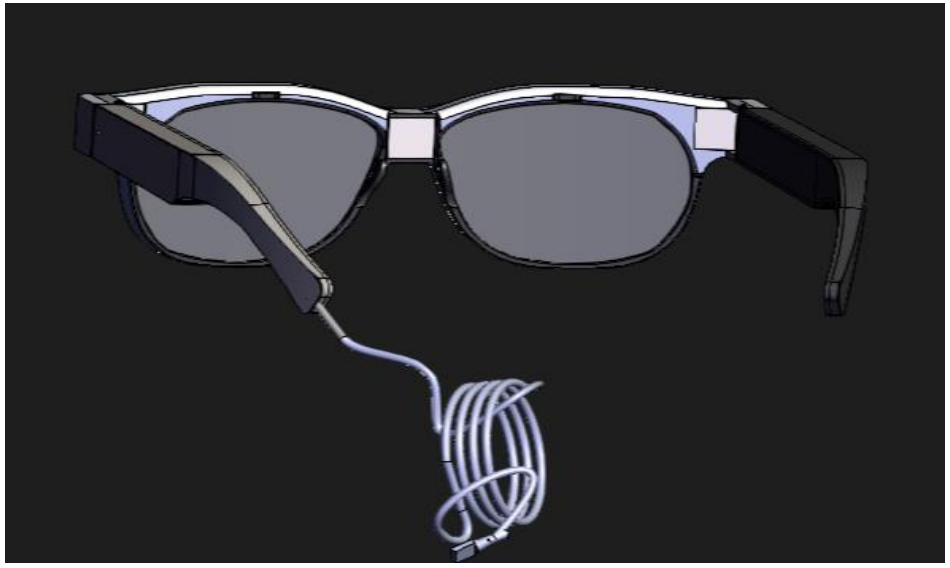
Statistics - Market Size

- The wearable AI market is projected to reach $180 billion by 2025. North America's market share in the wearable AI sector is expected to increase by 35%
- The AR and VR smart glasses market will grow from $15.93 billion in 2023 to $18.58 billion in 2024 at a CAGR of 16.6%. It is expected to reach $34.62 billion by 2028, growing at a CAGR of 16.8% during the forecast period
- Consumer Adoption Trends: Consumer adoption of wearable AI devices, including smart glasses, is driven by factors such as convenience, health and fitness tracking capabilities, integration with smartphones and other devices, and growing awareness of the benefits of AI-powered wearables.

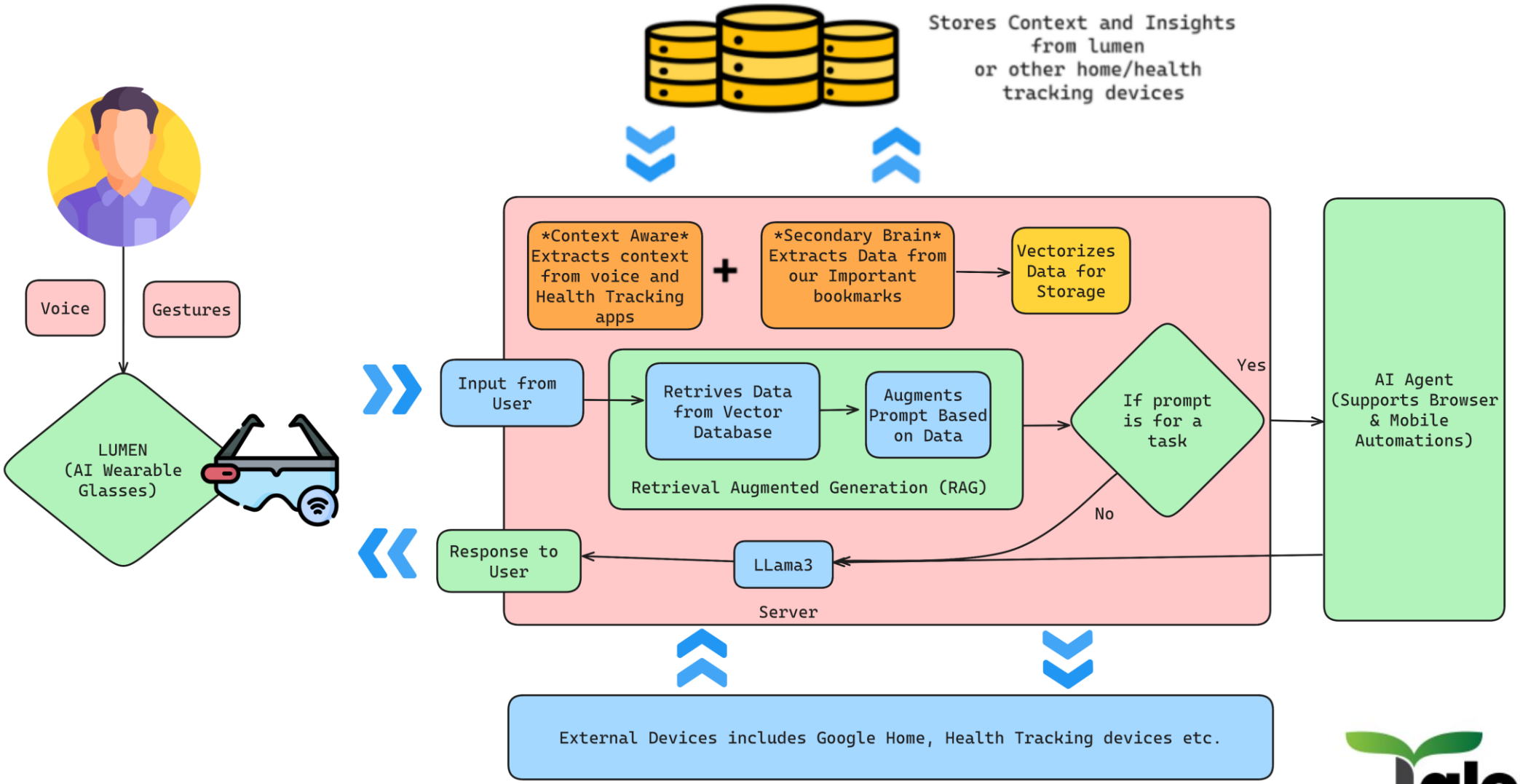
- https://www.thebusinessresearchcompany.com/report/ar-and-vr-smart-glasses-global-market-report
- https://codiant.com/blog/ai-and-wearables-a-dynamic-duo-for-the-healthcare-industry/
- https://www.nextmsc.com/report/consumer-ai-market

Mark-1 Prototype Designs





Proposed Solution - Software Architecture



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Features

1. **Hands-Free Computing**:
   Control and Compute through Lumen with gestures or voice commands through the holographic display. With integrated Linux OS, Lumen supports user to do tasks that can be done on a normal computing device

2. **Comprehensive Assistance**:
   Perform various tasks like booking tickets, weather forecasts and navigation help through voice/ gesture.

3. **No typing of long contexts of tasks to your Assistant**:
   Lumen gathers context from your day-to-day life tasks hence giving and advantage in assisting without having to give long explanations and descriptions. Acts like a True Assistant who understands you like no other.

4. **Versatile Assistant**:
   It can perform various tasks like that of a software engineer, data analyst, market researcher, personal assistant, and more, parallelly all at your command.

5. **Acts as Secondary Brain**:
   Acts as a second brain by accessing users bookmarks important pages/ apps / PDFs and retrieving them when needed based on user's query. This enhances Lumens context window to better assist the user.

6. **Acts as Personal Therapist and Advisor**:
   As our daily life gets more convoluted and unorganized, Lumen helps you clear up your mind by giving insights on the day and give personal advises.

7. **General Inquiry Response**:
   Access instant information and knowledge through Lumen.

Stakeholders

1. End users of Lumen encompass a wide range of individuals, from professionals in healthcare, engineering, and logistics to everyday consumers of diverse backgrounds. These users could include people with physical impairments who can benefit from the assistive features offered by Lumen
2. Manufacturing Partners: These partners will be directly be affecting the product supply by helping provide raw materials and infrastructural support.
3. Software Developers: Companies or organizations developing the underlying operating systems or platforms that power the smart AR glasses. This includes software development kits (SDKs) and application programming interfaces (APIs) for developers to create AR applications.
4. Research and Development Partners: Universities and research centers conducting research in fields related to augmented reality, artificial intelligence, machine learning, and human-computer interaction. Collaborations with academia can lead to advancements in technology and innovation.

Existing Solutions

1. Meta Ray-Ban Smart Glasses: Developed in partnership between Meta (Facebook) and EssilorLuxottica (Ray-Ban) Includes an integrated camera, speakers, and touchpad for capturing photos/videos, playing audio, and making calls Features Meta AI, a multimodal assistant that can answer questions based on what the glasses see and hear, provide translations, captions, and object recognition

2. Google Glass Enterprise Edition 2: Google Glass has been reintroduced as a business-focused product. It features a hands-free interface that responds to voice commands and integrates with Google's AI and ML technologies for various enterprise applications like remote assistance, logistics, and manufacturing.

3. Microsoft HoloLens 2: While not strictly glasses, Microsoft's HoloLens is an AR headset with AI capabilities. It doesn't rely solely on voice commands but includes gesture recognition and eye tracking. Its AI capabilities enable spatial mapping, object recognition, and integration with Microsoft's Azure cloud platform for AI processing.

4. Envision Smart Glasses: Designed specifically for blind and visually impaired users
   Developed on the Enterprise Edition of Google Glass, using AI to extract information from images
   Can read text from surfaces, describe scenes, detect colors and objects, and recognize faces
   Supports over 60 languages and is also available as an iOS/Android app