Problem Statement

Every day, millions of users turn to the internet to search for information — whether it's comparing products, researching topics, or verifying facts. But once they click a link, they're left alone to sift through cluttered webpages, irrelevant paragraphs, and endless scrolls to find what they actually need. This leads to wasted time, cognitive overload, and frustration, especially for students, researchers, and everyday users making informed decisions. Search engines provide answers at the start, but abandon users mid-journey. The lack of intelligent assistance during browsing creates a major gap in the online experience. Solving this problem means empowering people to explore smarter, faster, and with more confidence — making the internet truly work for them.

Target Audience

Our target audience includes students, researchers, professionals, and everyday internet users who rely heavily on online information for decision-making, learning, and comparisons. These users often deal with complex or scattered information across multiple tabs and websites, making it hard to stay focused and extract relevant content. In fast-paced environments where time and accuracy matter — like academic research, product reviews, or business analysis — this inefficiency leads to frustration and lost productivity. Worsin AI is built to support these users by providing real-time, contextual guidance and summaries as they browse, improving clarity and speed in their digital journeys.

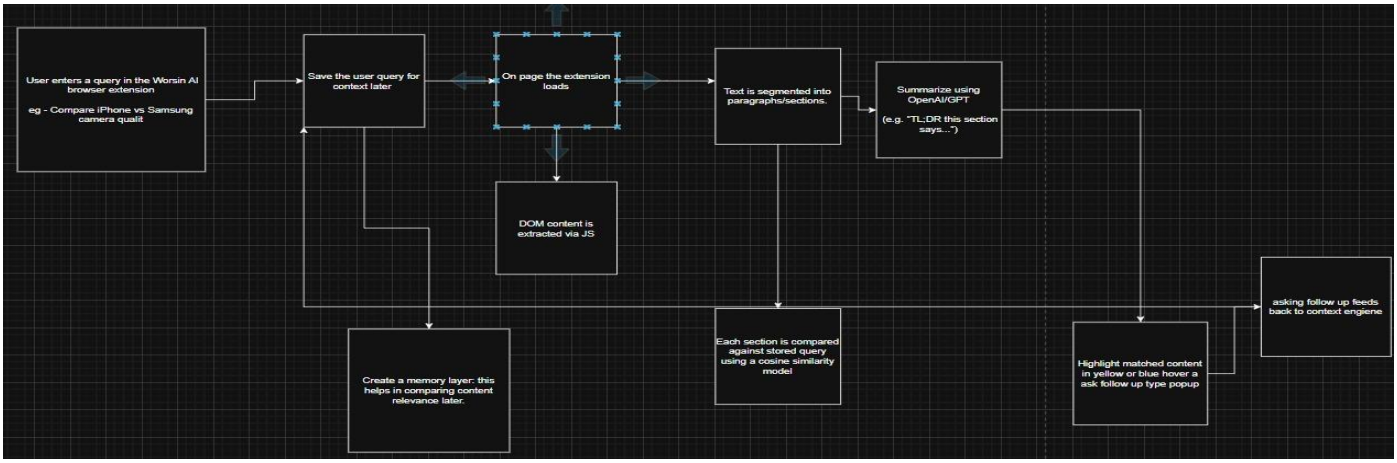
Use of Generative AI

Generative AI enhances the browser lens by maintaining a deep understanding of the user's query as they browse. It captures the search intent and applies it across all visited pages, summarizing lengthy content, highlighting relevant sections, and extracting key points aligned with the original topic. Using NLP, it recognizes contextually related information—even when phrased differently—and compares data across sources to surface contradictions or patterns. The AI also suggests follow-up questions, making the browsing experience more interactive and efficient. Unlike static tools, it adapts in real time as the user explores further. This transforms the browser into a smart research assistant, reducing information overload and helping users quickly access the most relevant and actionable insights without switching focus repeatedly.

Core Idea & Approach:

Worsin AI is a generative AI-powered browser extension designed to assist users intelligently as they navigate the web. The core idea is to stay with the user across webpages, understand their query or intent, and dynamically highlight, summarize, or extract relevant content in real time — creating a seamless layer of intelligence on top of existing websites.

Workflow & Architecture:



User Query Input: The user initiates a search or enters a query via the browser extension.

Context Capture: Worsin AI retains this query context and uses it to track relevance across webpages the user visits.

Page Analysis: As the user opens a new webpage, the extension scans the DOM, extracts text, and segments content using NLP and LLM models.

Relevance Engine: Using the stored query context, Worsin AI compares each section of the page to identify relevant content.

Dynamic Overlay: The extension overlays highlights, summaries, and quick insights directly on the page — without altering the original layout.

Interactive Layer: Users can ask follow-up questions, zoom in on concepts, or get simplified explanations with one click.

Tech Stack:

Frontend: JavaScript + Browser APIs (Chrome/Firefox)

Backend/AI: OpenAI APIs or custom LLM, context memory with embeddings, summarization via transformers

Additional Tools: Web scraping libraries, vector stores for contextual memory.

Feasibility and Execution

The browser lens is feasible using existing technologies like browser extensions, NLP models, and APIs from large language models (e.g., OpenAI, Cohere). Execution involves capturing the user's query, injecting an overlay into web pages, and processing content in real time using client-side and cloud-based AI. Open-source libraries like TensorFlow.js or LangChain can support local processing, ensuring speed and privacy. With modular architecture and scalable backend services, the extension can be rapidly developed, tested, and deployed across major browsers.

Scalability and Impact

The solution is highly scalable, as it integrates seamlessly into existing browsers and adapts to any website or domain. With cloud-based AI models and edge optimization, it can support millions of users concurrently. Its impact spans education, journalism, e-commerce, and research—reducing time spent on information gathering and improving decision-making quality. As web content grows exponentially, this tool ensures users stay focused, informed, and efficient, making intelligent browsing accessible and beneficial across industries and user skill levels.

Conclusion

Worsin AI is a smart browser assistant that follows your query across websites, highlighting and summarizing only the most relevant content. Unlike search engines that leave you to dig through pages, Worsin AI offers a persistent, context-aware experience. Its uniqueness lies in real-time overlays and adaptive guidance. *With a query-based monetization model—offering limited free queries and premium tiered plans—it’s a scalable, high-potential tool for smarter browsing.*