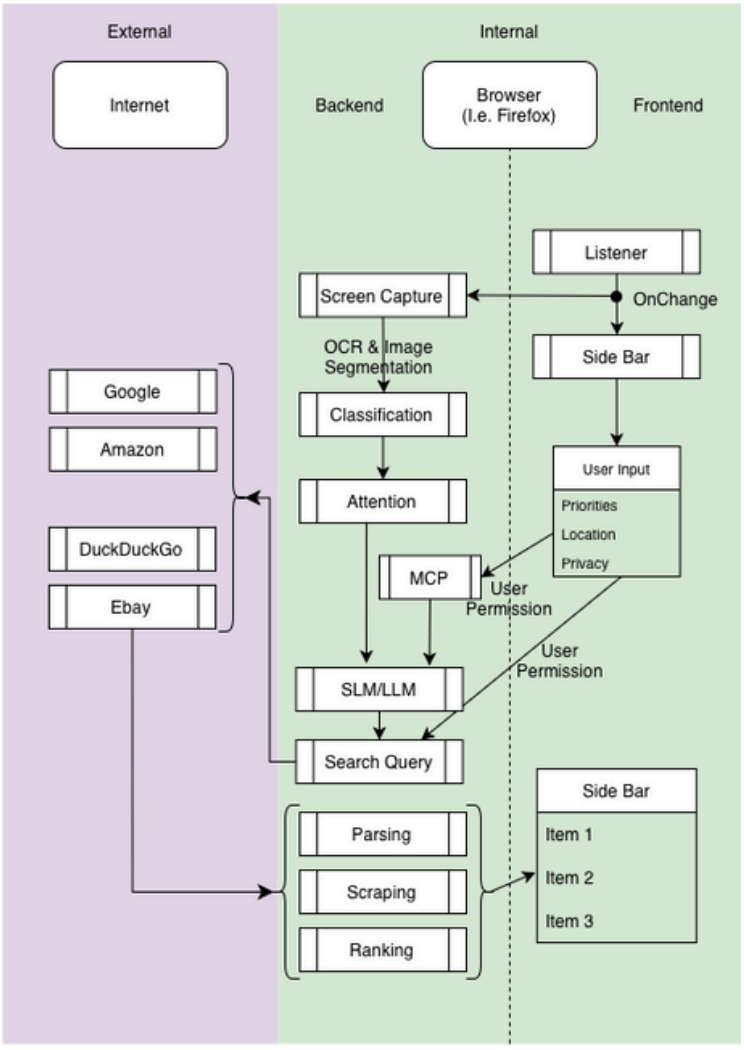
SHOP ON YOUR TERMS

Submission: Hack-Nation Feb. 2026
Challenge: The Universal Web Agent (Mozilla)
Corporate Design: https://mozilla.design/firefox/

TECH REPORT

Proposed Architecture:



Frontend (Browser Extension)

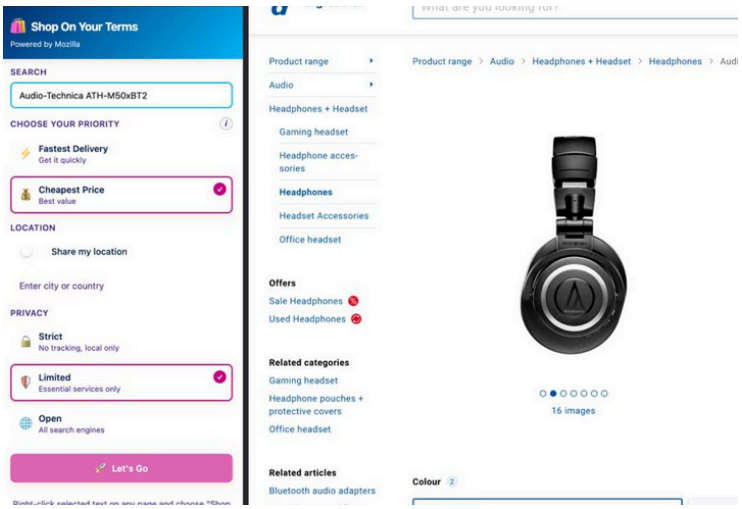
- Runs in the user's browser
- Contains UI components: Listener, Side Bar and user input fields for priorities, location, and privacy settings

Backend Processing Pipeline

- Screen Capture - Captures the current webpage
- OCR & Image Segmentation - Extracts text and visual elements
- Classification - Categorizes content
- Attention & MCP - Focuses on relevant product information with user permission controls
- Search Query Generation - Creates optimized search terms
- Parsing/Scraping/Ranking - Processes results from multiple platforms

External Integrations

- Searches across Google-shopping, Amazon, DuckDuckGo, and Ebay (for text) and Google-Lens (for images): Choice depends on privacy settings
- Returns ranked results to the sidebar



Current Implementation
We use SerpApi to access various search engines. Ranking and scrapping is done in python.

Tech Stack: Harbor Repo, React, Javascript, Typescript, Python

AI Support: Claude Code, Codex

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