

CYBER HYGIENE TOOL

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Abstract

PROPOSED SOLUTION

To address the problem of the lack of cyber hygiene awareness among Indian internet users and the increasing risks associated with online activities, we have developed a comprehensive solution called KAVACH. KAVACH is an AI-based advisory tool that provides users with a one-stop solution to safeguard their online activities. It keeps track of all online activities and provides real-time alerts and suggestions to users, enabling them to make informed decisions about their online behavior. KAVACH uses federated learning models to improve its algorithms continuously. By utilizing deep neural networks, it identifies complex types of attacks and classifies them for the users, ensuring a safer online experience. Moreover, to ensure users' privacy and security, KAVACH uses a sandboxing agent that tests the product before deploying it onto users' devices. KAVACH is designed to meet the needs of users of all skill levels, making it easy for anyone to use it. With KAVACH, we believe we can make a significant impact in promoting cyber hygiene awareness among Indian internet users and keep them safe online.

Innovation & Impact

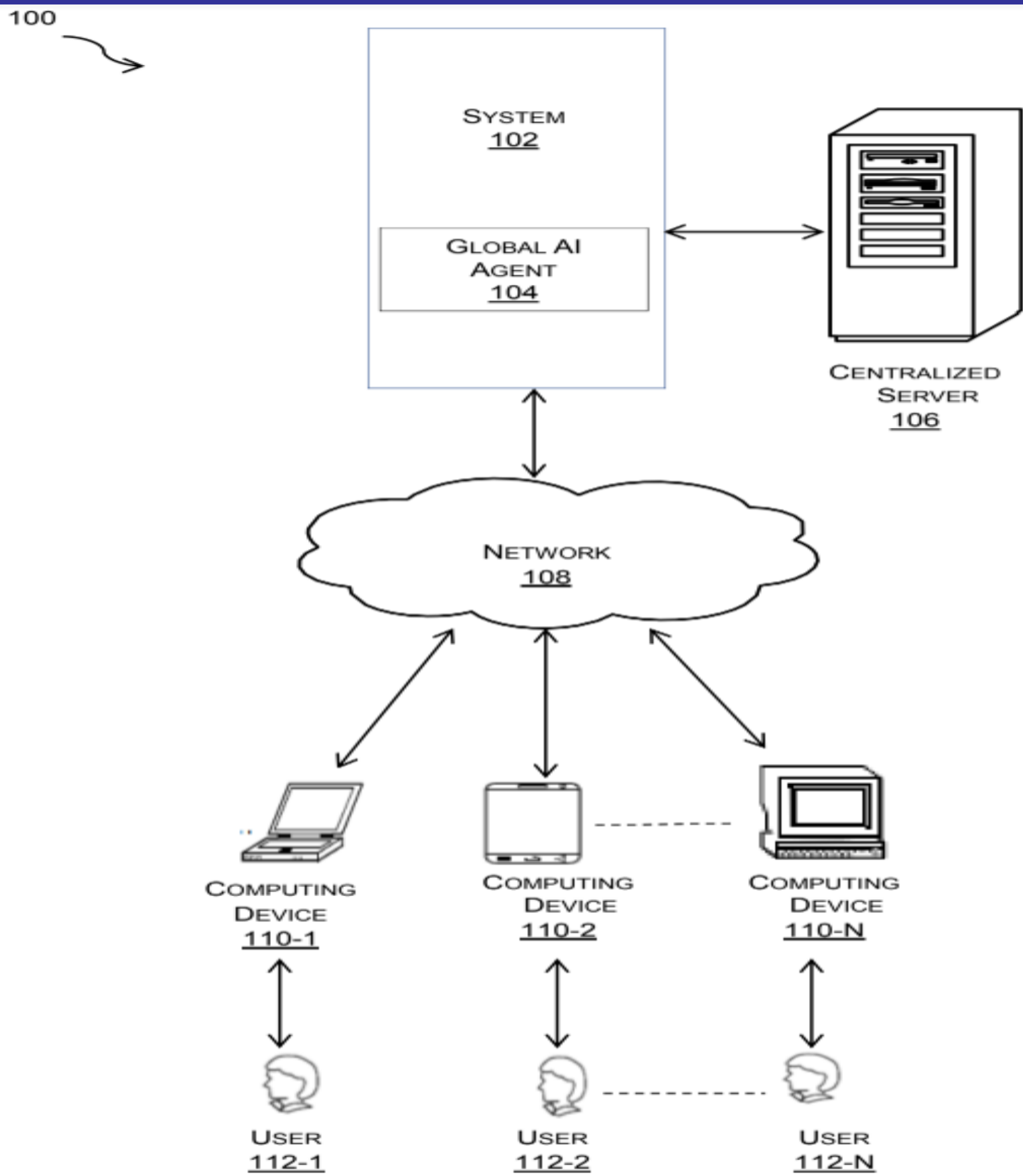
INNOVATION:

- * AI based agent deeply classifies the web urls and classifies them for further processing.
- * An advisory/recommendation system for the genuine web portal / sources for downloading commonly-used software/content.
- * Sandboxed Environment to check for malformed or malicious data propogation.
- * A global Artificial intelligent Federated Learning based model that updates each and every product distribution with an attack incident.
- * A Black list and a while list is maintained globally in order to safeguard every other user from any type of attack.

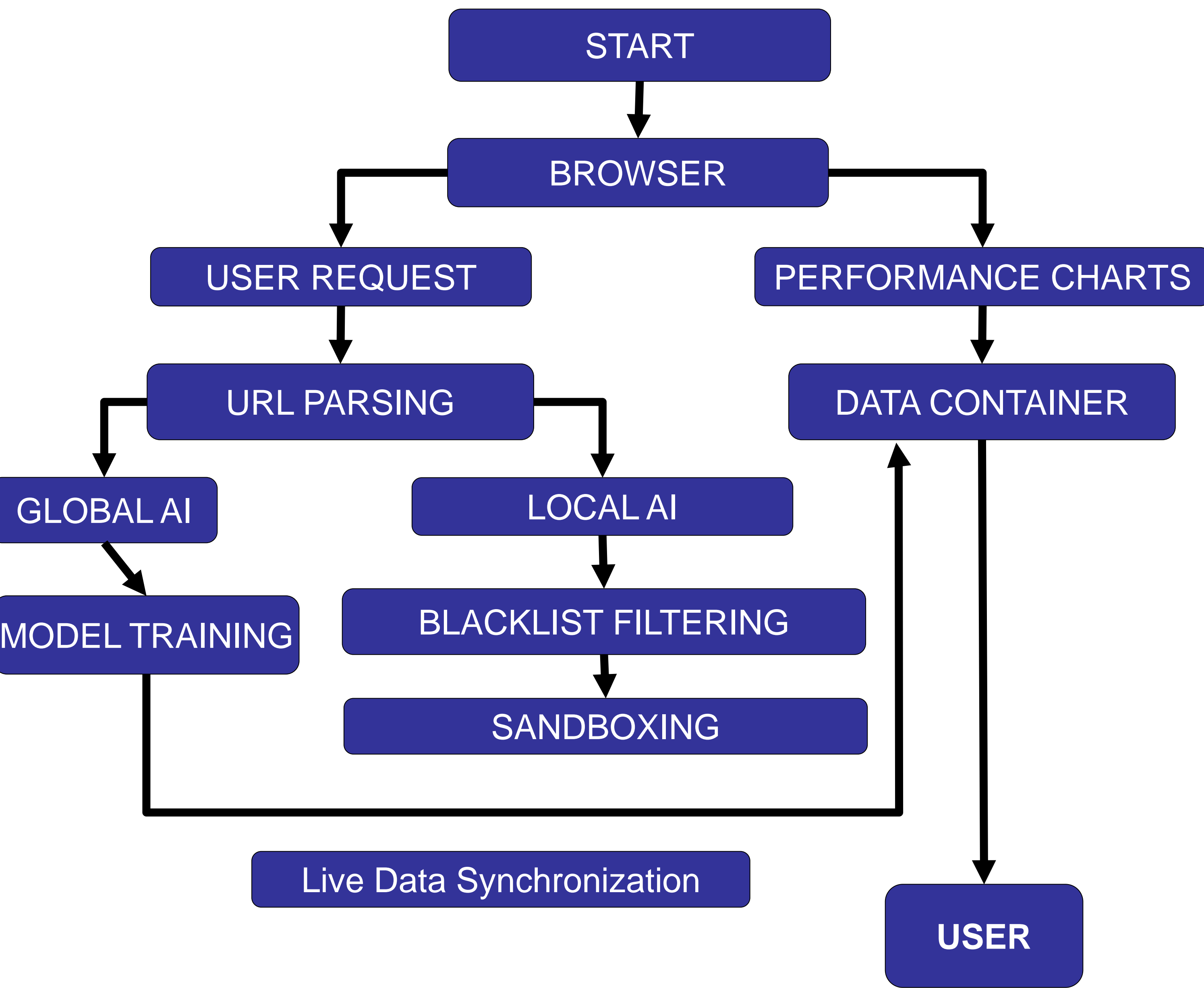
IMPACT:

- * An artificial intelligent based advisory service to the users to help them avoid potentially dangerous web sources.
- * A globally coordinated dynamic federated learning framework which continuously fine tunes its response to globally observed threats.
- * A feedback mechanism which helps improve accuracy and effectiveness of the advisories , issued by the AI based agent on individual computers , against new emerging threats.
- * A multidimensional framework protecting user against a multitude of online frauds and threats.

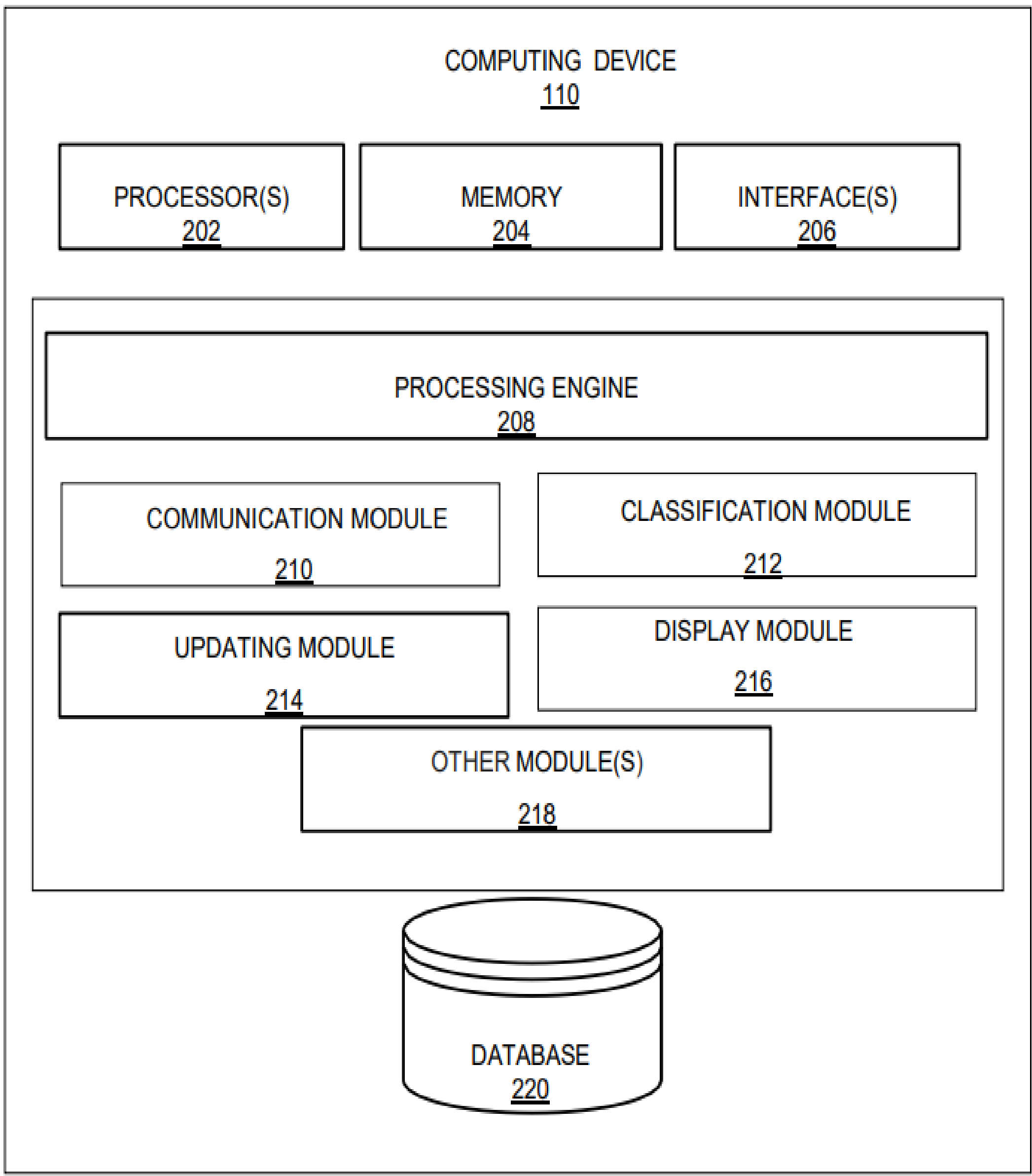
Functional Workflow



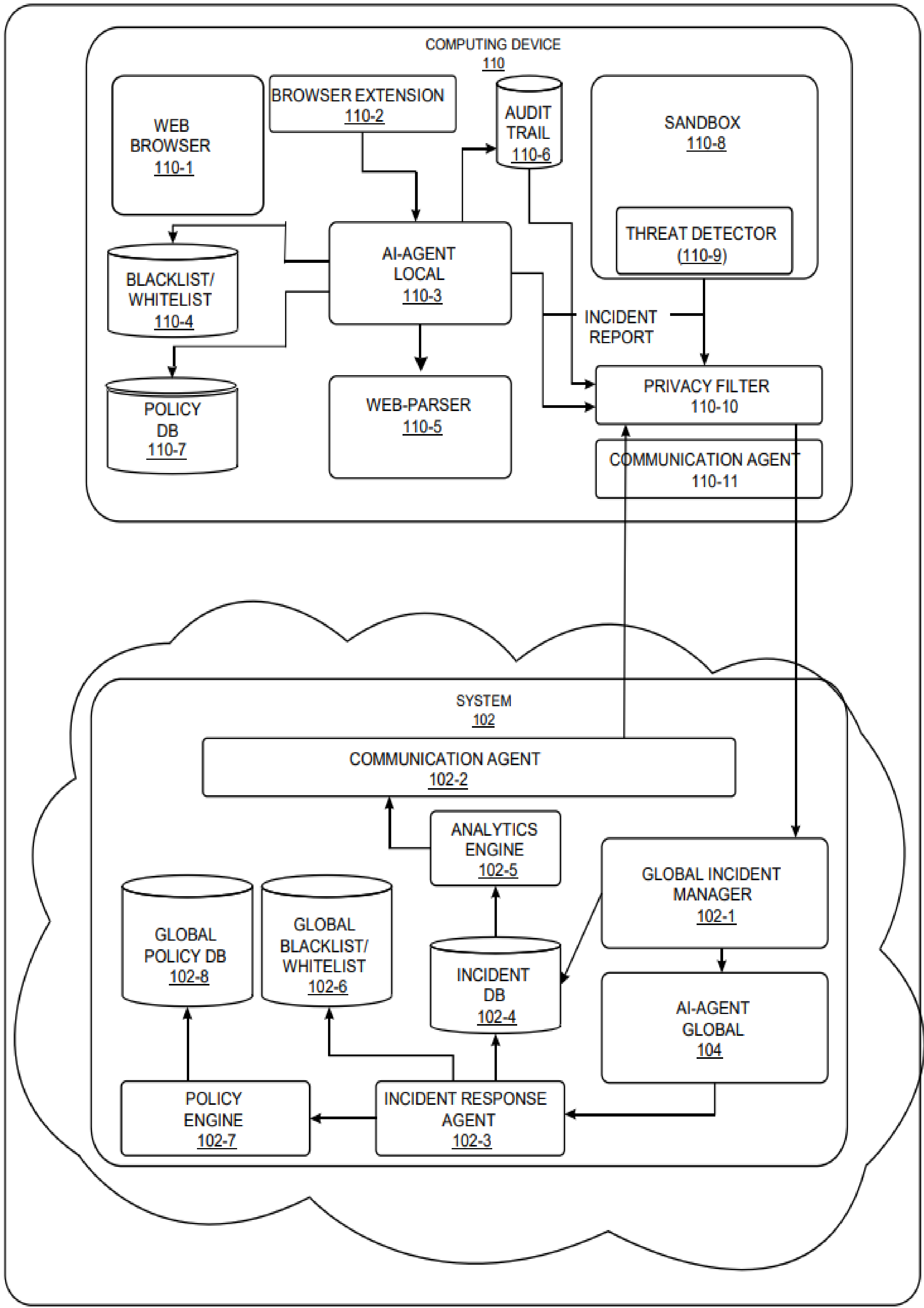
Interaction Model



Data Processing Workflow



Architecture Diagram



Language(s) | Technology Stack

LANGUAGES:

- PYTHON , JAVASCRIPT , JQUERY , HTML , CSS

TECHNOLOGY STACK:

- WEB DEVELOPMENT
- ARTIFICIAL INTELLIGENCE
- CYBER SECURITY

API(S):

- Urllib.parse