INTRUDER DETECTION FRAMEWORK

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Abstract

Cyber-crime now a days is booming at an alarming rate. The naiveness and the lack of awareness among the users has increased the rate of cyber-crime by a large number. The most common attacks to which the users are most susceptible are the phishing and the MITM(Man In The Middle Attacks) that are usually carried out on the free public WIFI's and home gateways. An estimate of about 10.5 Trillion Dollars is the round figure that cyber frauds are going to cost the world in the coming years.To address this problem We have come up with a solution to implement an intruder detection framework that takes care of the parameter , network and system security by using state of the art technologies like artificial intelligence and honeypot systems.To make the product Seamless and easy to use for a naive user we have come up with one stop solution software that integrates with all the branches of the framework and generates smart analytics that are accessible on a user's smartphone as well .The OSS uses smart notification based flagging system that smartly classifies the level of threat in any system and delivers it securely to the admin .The product uses the high tech features that of a large scale IDS but delivers them at a very low cost. The product has branches rang from close platform support that include windows Systems Internet browsers and Android devices .The cross platform Functionality of the product Tries to maintain the absolute standards of the CIA trait .

Innovation & Impact

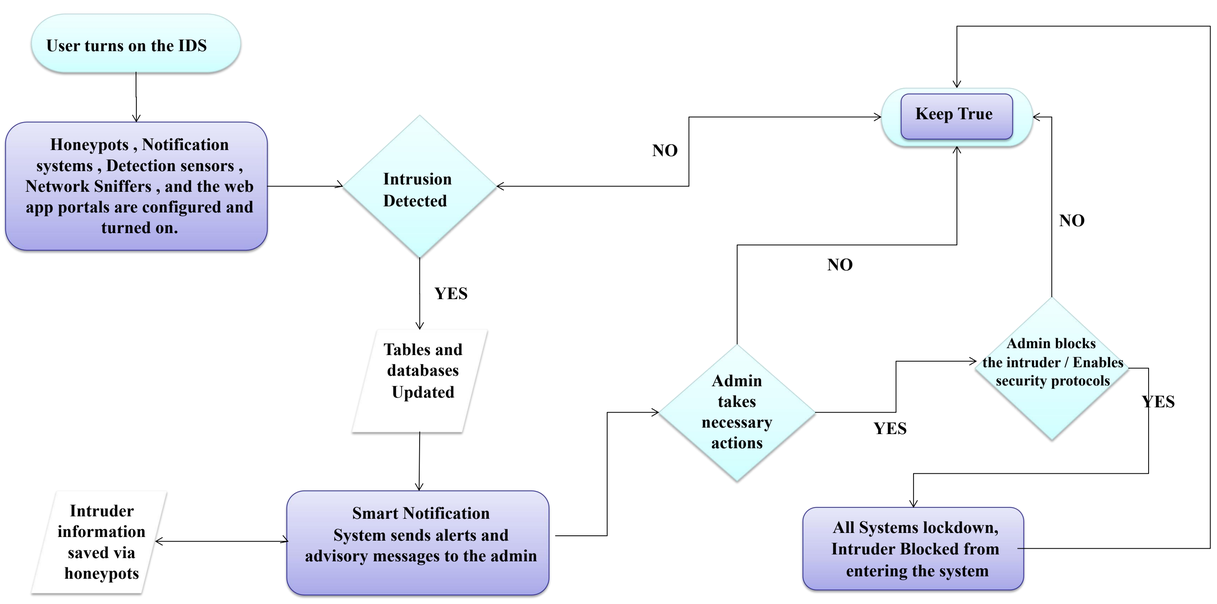
INNOVATION:

- Threat level based intruder detection classification
- Smart Notification based flag alerting system
- Chatbot based IOT Controlling

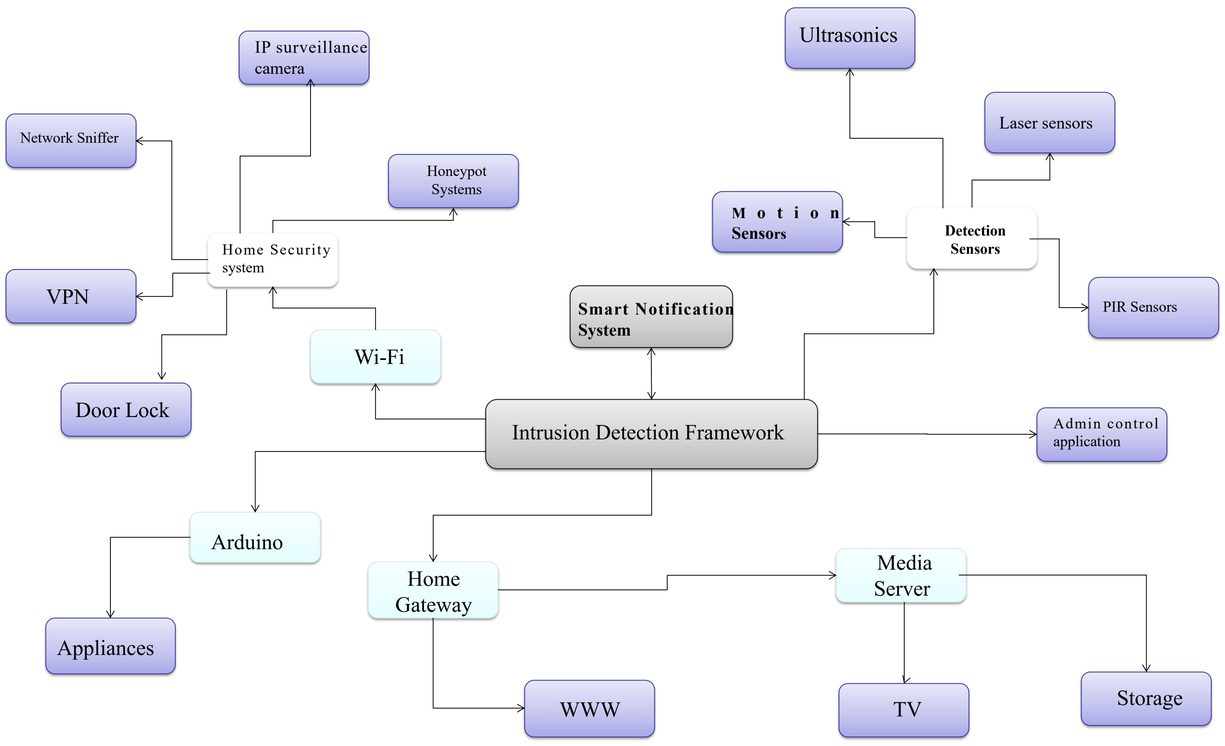
IMPACT:

- Reducing the overall cyber crime cost across India.

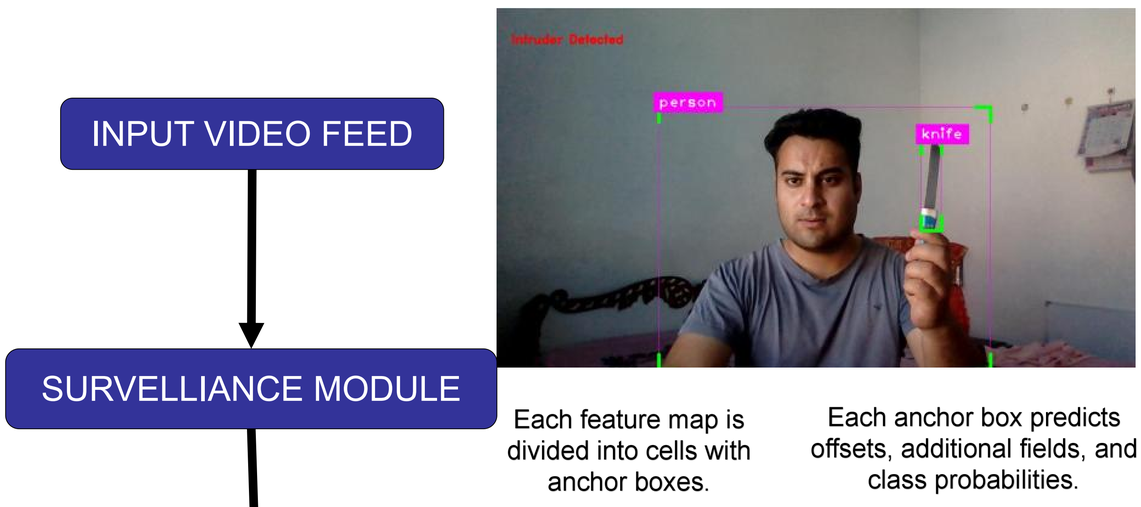
Functional Workflow



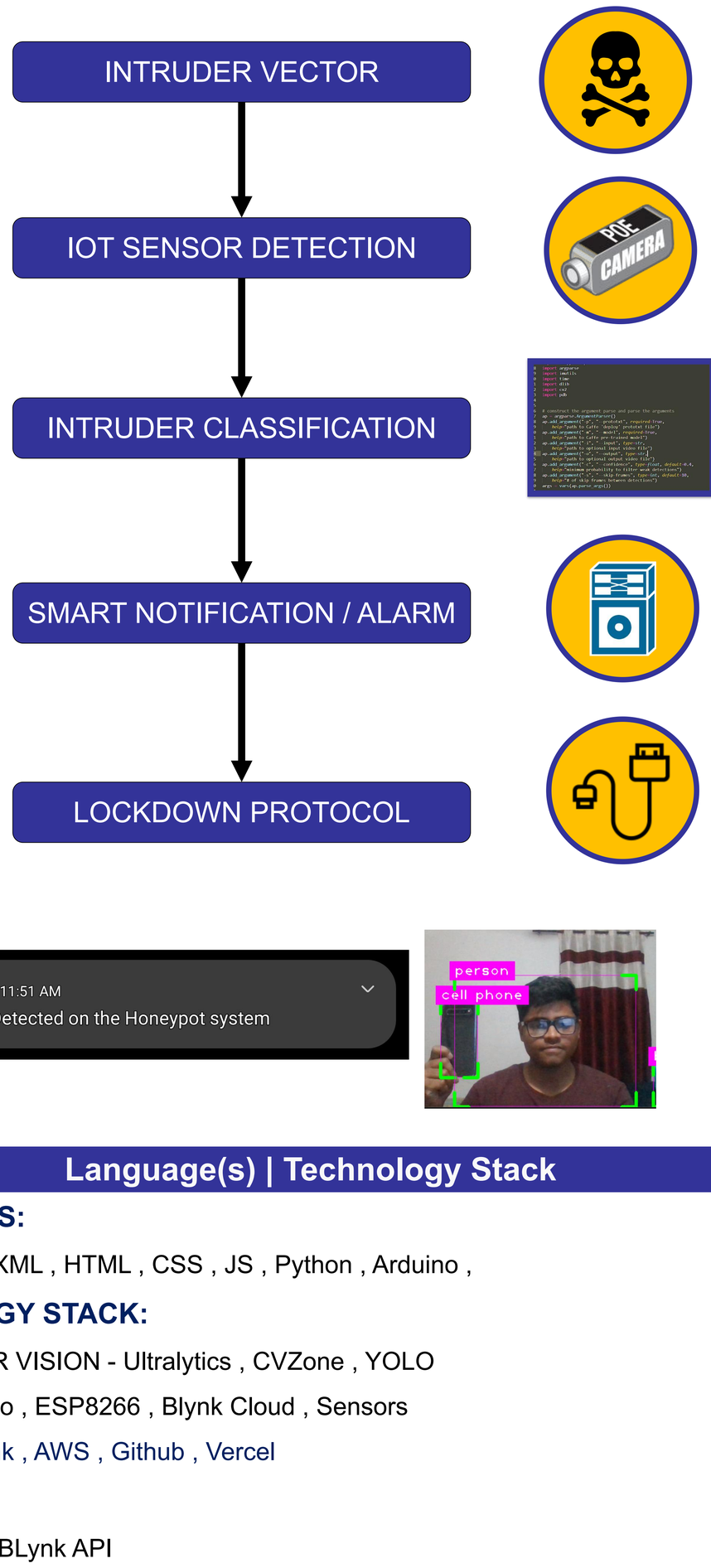
Interaction Model



Data Processing Workflow



Architecture Diagram



Language(s) | Technology Stack

LANGUAGES:

- C# , Java , XML , HTML , CSS , JS , Python , Arduino ,

TECHNOLOGY STACK:

- COMPUTER VISION - Ultralytics , CVZone , YOLO
- IOT - Arduino , ESP8266 , Blynk Cloud , Sensors
- Cloud - Blynk , AWS , Github , Vercel

API(S):

- Rapid API , BLynk API

Project Code: - COM-811