Problem
Statement

## Rising Cybercrime Losses:

In India, cybercriminals stole ₹2,396 crore in 2024 and ₹938 crore in just the first five months of 2025.

Globally, scammers stole $16.6 billion in 2024, a 33% increase from the previous year.

## Phishing as a Major Threat:

Over 3.4 billion phishing emails are sent daily, about 1.2% of all email traffic.

Phishing is involved in 36% of all data breaches, costing companies an average of $4.8–$4.9 million per breach.

kyndryl

Microsoft

Solution

# Expected Solutions: ArtemisSheild

## Deep Learning-Powered Defence

- Detects phishing links, fake mails, malicious websites
- Identifies anomalies & unseen zero-day threats
- Protects against DNS poisoning
- Using techniques LSTM,CNN in artificial neural network

## Agentic AI Browser Extension

- Works autonomously in background
- Simple, no expertise needed — protects all users

## Innovation Edge

- Self-learning → constantly improves
- Lightweight → seamless browsing experience.

kyndryl

Microsoft

Tech
Architect

# Technical Architecture

- **User Layer** → Browser extension monitors links, emails, websites.
- **AI Agent Layer** → Detects suspicious inputs, triggers analysis.
- **Detection Layer (Local ANN Models)** →
CNN → webpage/images,
LSTM → text/URLs,
MobileNet → lightweight execution.
- **Alert & Response** → Real-time user alerts + recommended actions.
- **Logging & Self-Learning** → Flags anomalies, retrains locally to adapt to zero-day threats.
- **Scalability** → Extendable to mobile apps, enterprise dashboards, open-source growth.

kyndryl

Microsoft

How is Microsoft Azure used? (minimum 1 azure service to be used)

## Azure Blob Storage

- Store **threat intelligence data**, flagged phishing URLs, or anonymized user reports.

## Azure PostgreSQL Flexible Server

- Instead of a local PostgreSQL, use **Azure Database for PostgreSQL**.

## Azure Machine Learning (Azure ML)

- Deploy your Pytorch models (CNN, LSTM, MobileNet) as **managed endpoints.**

## Azure Monitor / Application Insights

- Track security events, anomalies, and extension usage stats.

kyndryl

Microsoft

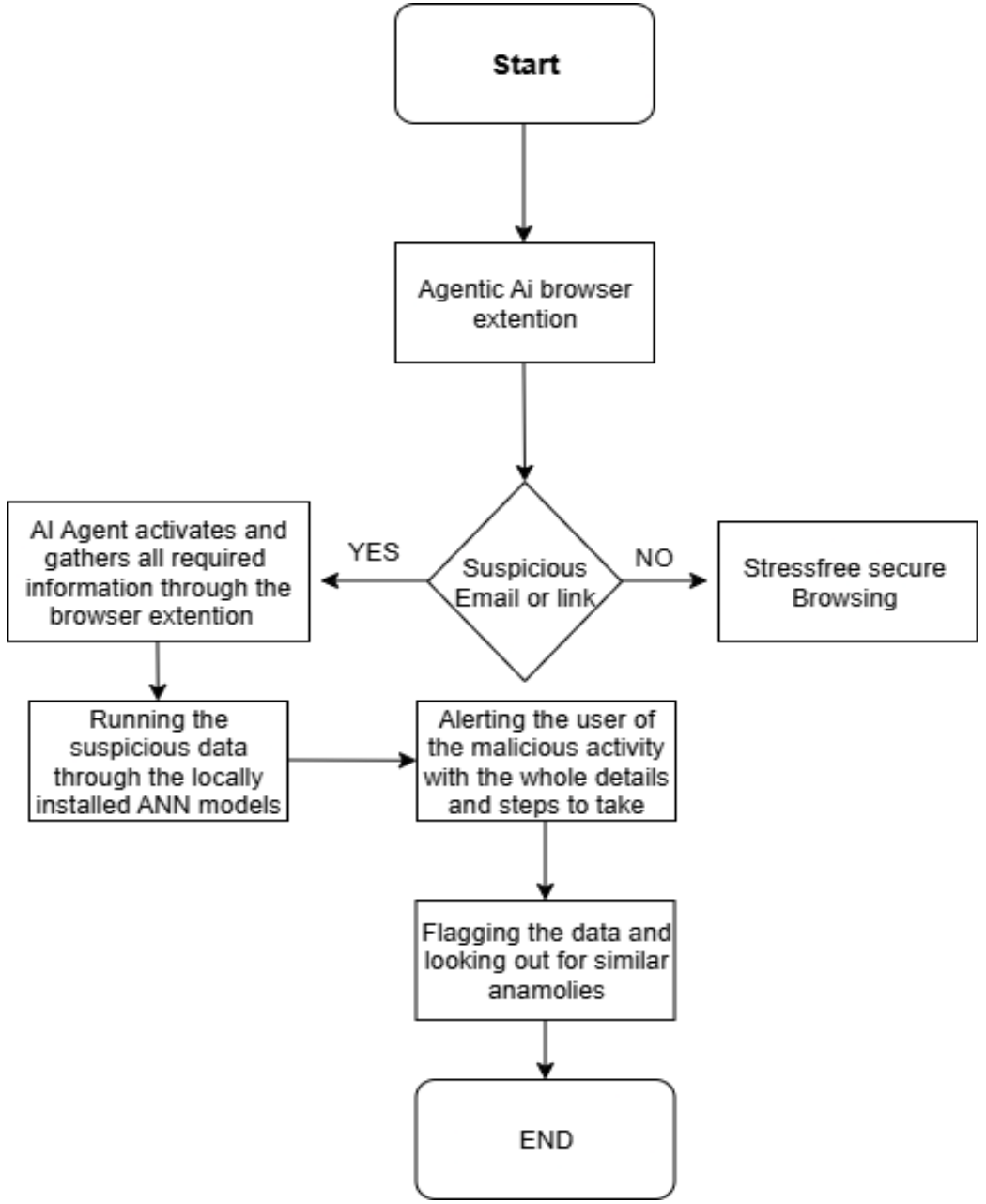
Tech Diagram, Stack & GitHub Repo Link

Tech stack used:

- Python
- Pytorch
- Fast API
- PostgreSQL
- Microsoft Azure
- JavaScript

Github repo:

https://github.com/pran-avk/VEDA




kyndryl

Microsoft