DAYANANDA SAGAR COLLEGE OF ENGINEERING

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AN AUTONOMOUS INSTITUTE AFFILIATED TO VTU, BELAGAVI SHAVIGE MALLESHWARA HILLS,
KUMARASWAMY LAYOUT, BENGALURU-560111

Department of Computer Science & Engineering

Presents

PRIZE POOL
₹ 1,00,000

A 24 hour International Level Hackathon

RECURZIVE V2

Sponsored by

X TRAIL CloudSEK Binary Holdings

Dr. Ramesh Babu D R
Vice-Principal and Head
Department of CSE
DSCE

Student Coordinators
Raghava R   Anush G R
9632973782   &   9019873297

Convenor
Prof. Amith Pradhaan
Assistant Professor,
Dept. of CSE, DSCE

Dr. B G Prasad
Principal
DSCE

@bytexync   bytexync.xyz

TEAM DETAILS

TEAM NAME:

TEAM MEMBERS DETAILS:

Name	Email	Phone	College
Nagulakonda G N V Sai Satya Chetan	nagulakondachetan@gmail.com	8919769377	Alliance University
Varun Baskaran	varunofficial.sv@gmail.com	6383707425	Alliance University
S D Kowshik Raj	kowshikraj80@gmail.com	9597336075	Alliance University
Subhi J	subhijoseimportant@gmail.com	6374729743	Alliance University

PROBLEM STATEMENT

Public figures on Instagram face growing threats from fake accounts, disinformation campaigns, and harmful content that can spread rapidly. These attacks endanger reputations, security, and public trust. Existing solutions are fragmented, focusing on isolated issues without real-time detection, network analysis, or human validation. As a result, threats often go unnoticed until they escalate, evidence is incomplete, and responses are delayed, increasing the risk of reputational damage. There is a critical need for an integrated system that combines AI-driven threat detection, graph-based campaign mapping, and analyst review to identify coordinated attacks quickly and provide actionable insights for timely intervention.

SOLUTION

A real-time **VIP Threat & Misinformation Monitoring System** that:

• Collects Instagram data via API & scraping.

• Detects threats, fake profiles, and misinformation using AI (NLP, image analysis, fact-check APIs)

• Maps coordinated campaigns with graph analysis

• Provides analysts with a live dashboard for alerts, evidence, and reporting.

• Delivers actionable intelligence to authorities via APIs and reports.
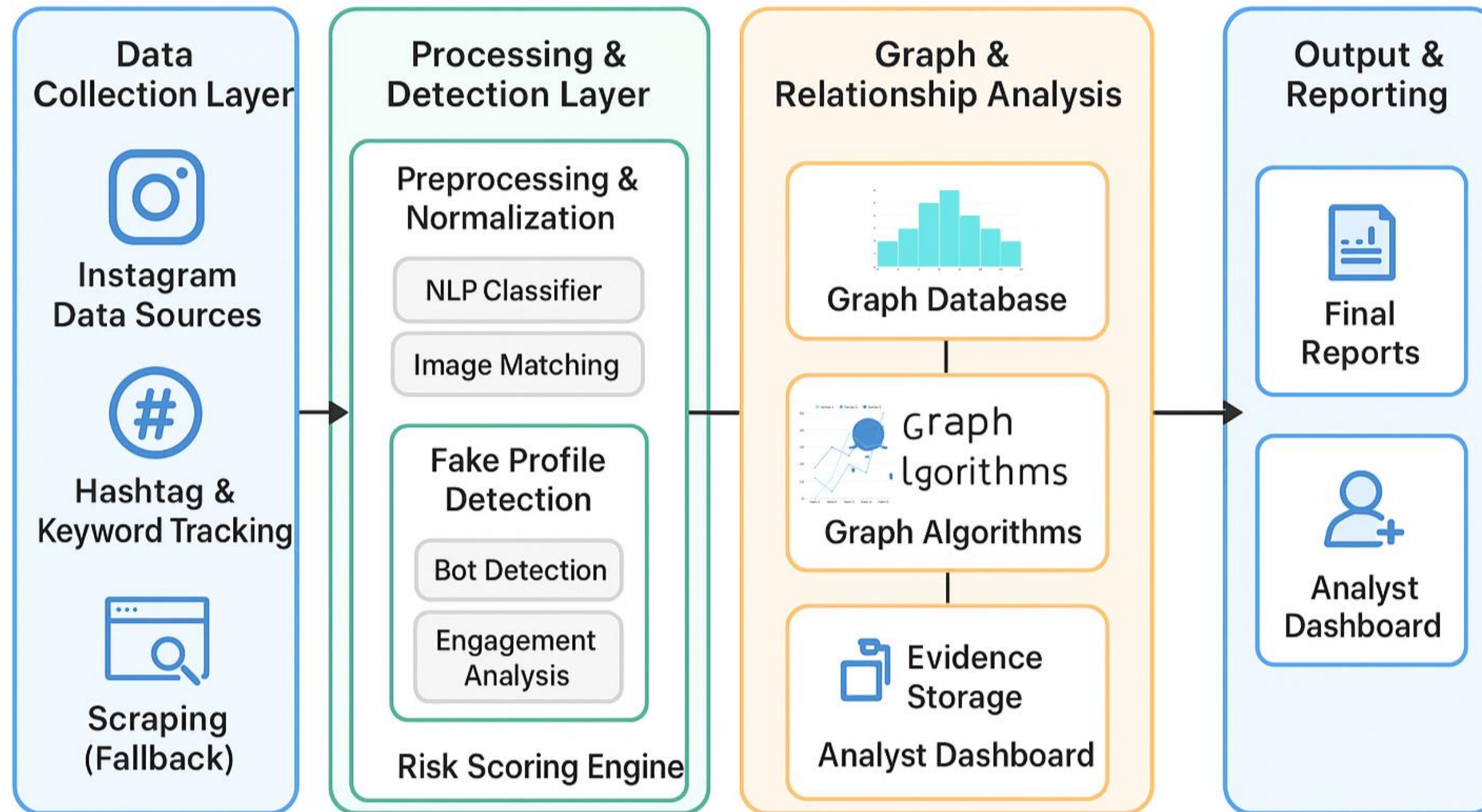
FEATURES

1.Real-Time Threat & Misinformation Detection – Uses AI (NLP & image analysis) to identify threats, harassment, fake content, and misinformation instantly.

2.Fake Account & Bot Detection – Analysis account patterns (engagement, followers, activity) to flag suspicious profiles.

3.Graph-Based Campaign Mapping – Visualizes coordinated attacks, influencer networks, and fake account clusters using Neo4j.

4.Analyst Dashboard with Evidence & Reporting – Provides real-time alerts, detailed evidence, and one-click report generation for authorities.

FLOWCHART

TECH STACK

•**Programming Languages:** Python, JavaScript

•**Frameworks & Libraries:** FastAPI (backend), React + D3.js/Graphistry (frontend), Transformers & Scikit-learn (ML/NLP), OpenCV (image analysis)

•**Databases:** MongoDB (raw data), PostgreSQL

•**Tools & Platforms:** Instagram Graph API, Playwright/Selenium (scraping), Apache Kafka (streaming), Docker, Kubernetes (deployment)

IMPACT

•**Protects VIPs & Brands:** Detects threats, misinformation, and impersonation early, preventing reputation damage.

•**Enhances Security & Trust:** Identifies fake accounts and coordinated attacks, ensuring a safer online environment.

•**Saves Time & Resources:** Automates monitoring and analysis, reducing manual effort for investigators.

•**Supports Law Enforcement:** Provides actionable evidence and insights for quick response to cyber threats.