BLOCKCHAIN & AI BASED SMART SECURITY DASHBOARD

github link: Smart Security Dashboard

GENESIS OF THE IDEA

Problem Statement - Cyber threats like intrusions and DDoS attacks are growing, yet existing systems lack real-time detection and log integrity, leaving investigations unreliable.

Theme - Cybersecurity(AI + Blockchain for secure digital infrastructure)

Team Name - InnoByte

SOLUTION UNLOCKED

The Problem

Key challenges that make modern networks vulnerable.

- ✓ Huge network traffic makes it hard to detect attacks in time.
- ✓ Cyber-attacks like malware, DDoS, and intrusions often go unnoticed.
- ✓ Security logs can be altered or deleted after an attack.
- ✓ This makes investigations unreliable and slows down response.

Our Solution

How our system effectively solves the problem.

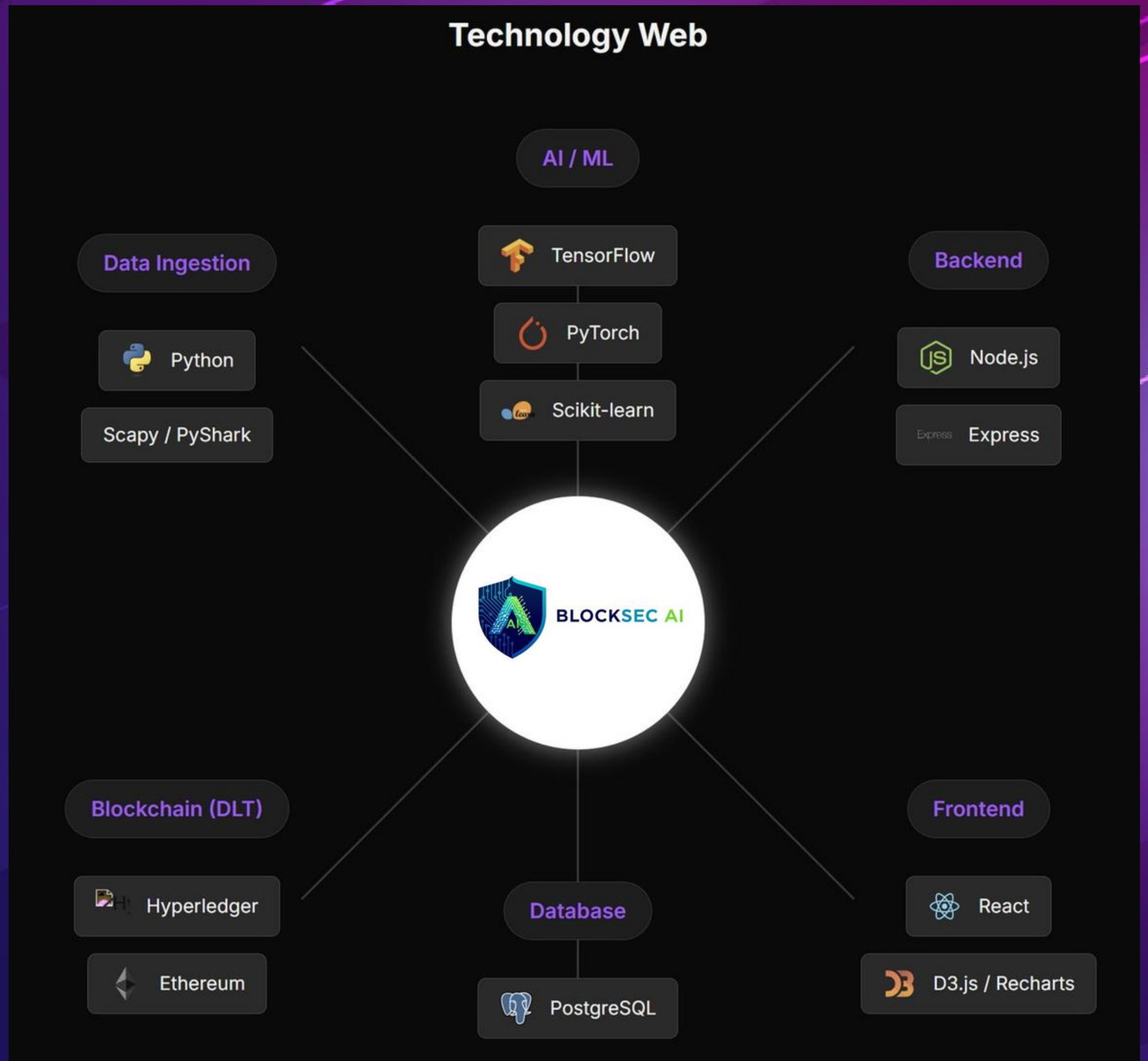
- ✓ Detects cyber threats instantly using advanced AI.
- ✓ Prevents log tampering with blockchain security.
- ✓ Reduces investigation time and associated costs.
- ✓ Ensures trust, accuracy, and faster incident response.

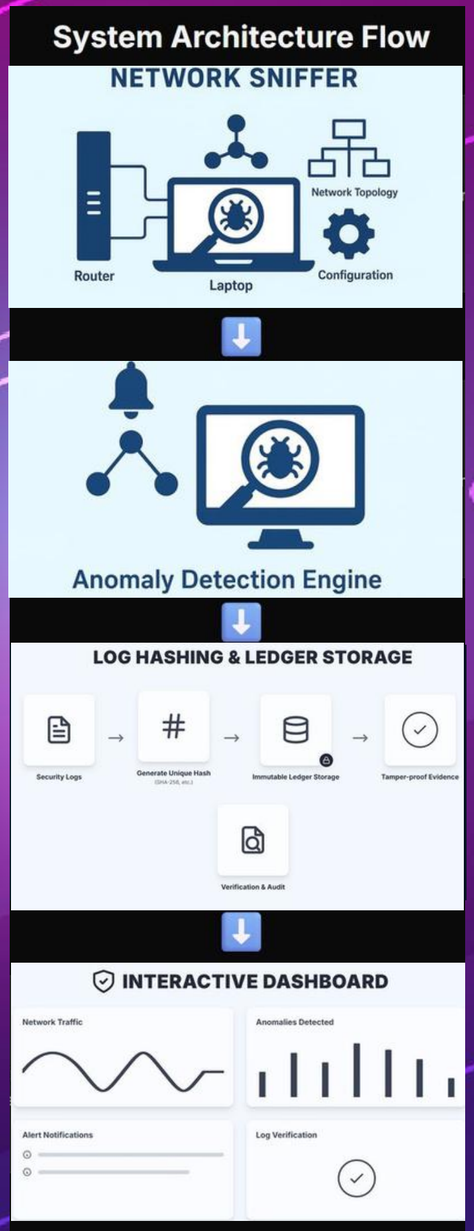
Innovation & Novelty

The unique factors that set our solution apart.

- ✓ Unique AI + Blockchain integration for dual-layer security.
- ✓ Combines intelligence (AI) with trust (Blockchain).
- ✓ Blockchain ensures log immutability, preventing tampering.
- ✓ Provides both proactive defense and trusted evidence.
- ✓ Scalable and adaptable for different organizations.

THE SMART STACK





FEASIBILITY & RISK ANALYSIS

Key Risks & Challenges

Technical

- AI false positives/negatives.
- Rapid blockchain storage growth.
- Legacy system integration.

Operational

- Team training for new workflows.
- Resistance to new dashboards.
- Need for continuous updates.

Security

- AI vs. adversarial attacks.
- Blockchain nodes as targets.
- Data exposure risks.

Mitigation & Contingency

Technical

- Continuous AI model training.
- Optimize storage via pruning.
- Use APIs for smoother integration.

Operational

- Hands-on training for SOC teams.
- Hybrid dashboards for adoption.
- Schedule regular updates.

Security

- Adversarial training for AI.
- Harden & encrypt nodes.
- Strict configuration management.

Practicality & Viability

Technical

- Built on proven technologies.
- Smooth scalability & compatibility.

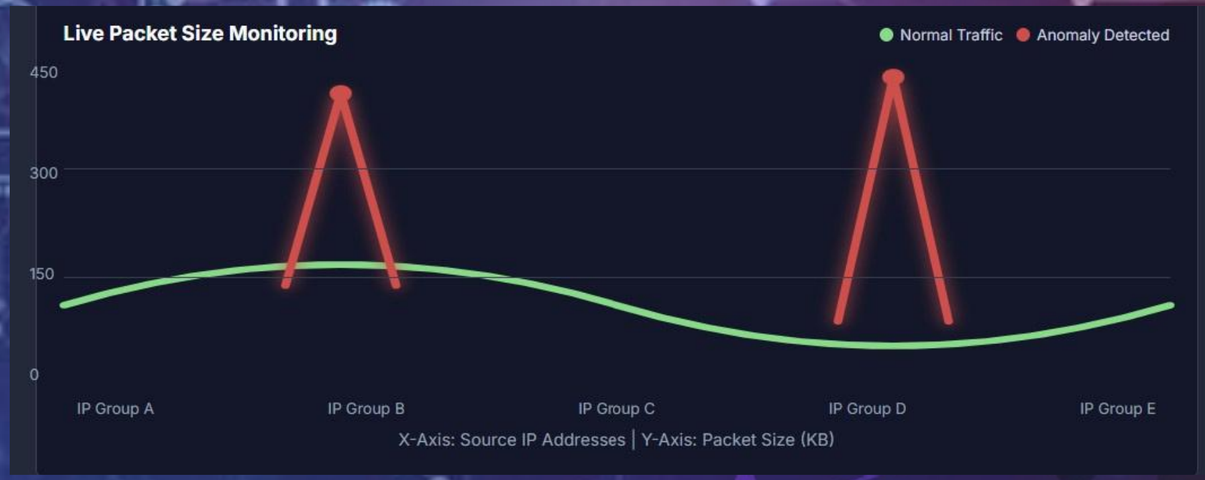
Operational

- User-friendly dashboard.
- Flexible deployment options.

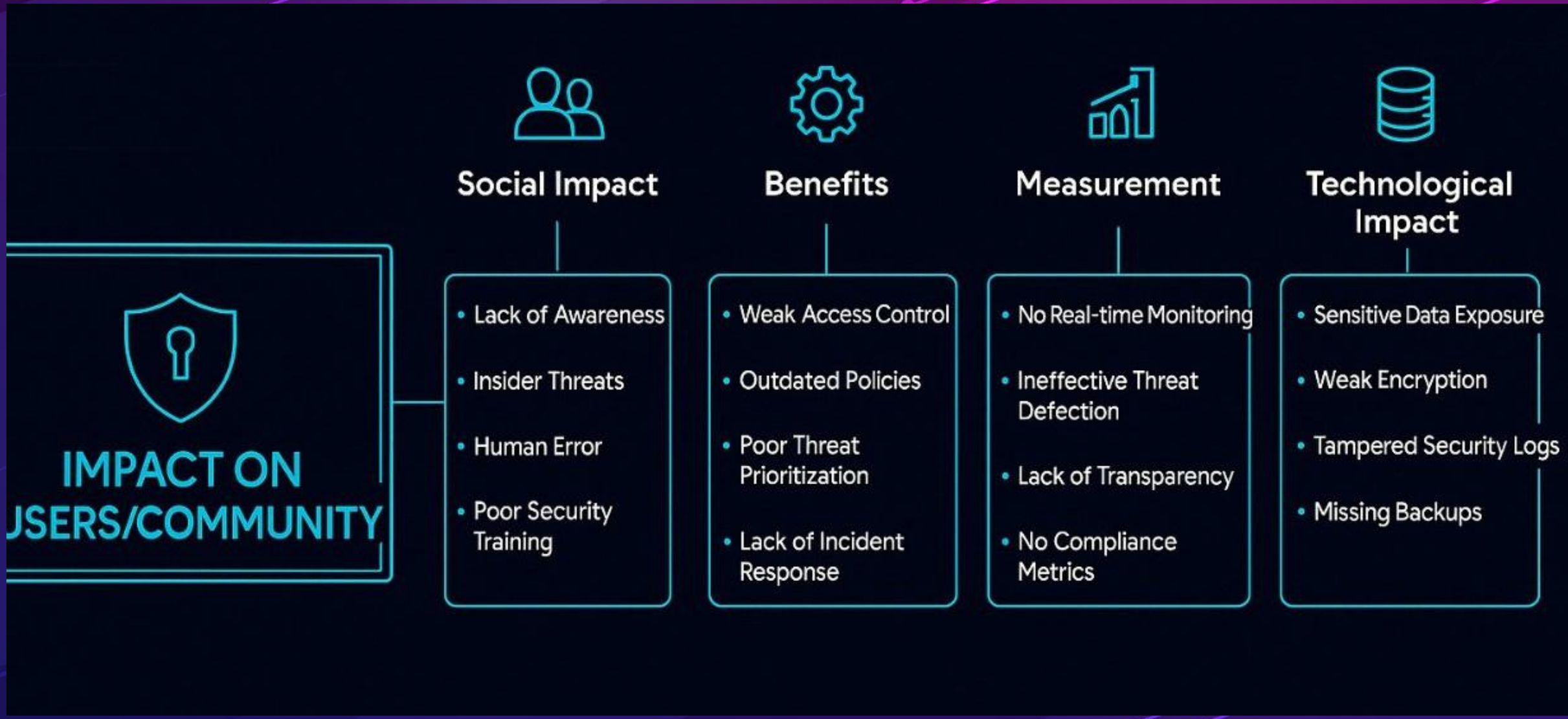
Economic

- Reduces investigation overhead.
- Cost-effective solution.

Overall: Sound, Practical, & Viable



FROM IDEA TO IMPACT



CORE ARCHITECTURE

- User-friendly web-based dashboard.
- Visualizes data with interactive charts.
- Implements robust traffic filtering.
- Detects anomalies and suspicious patterns.
- Maintains historical logs for analysis.
- Enhances situational awareness and reduces reliance on technical

expertise.