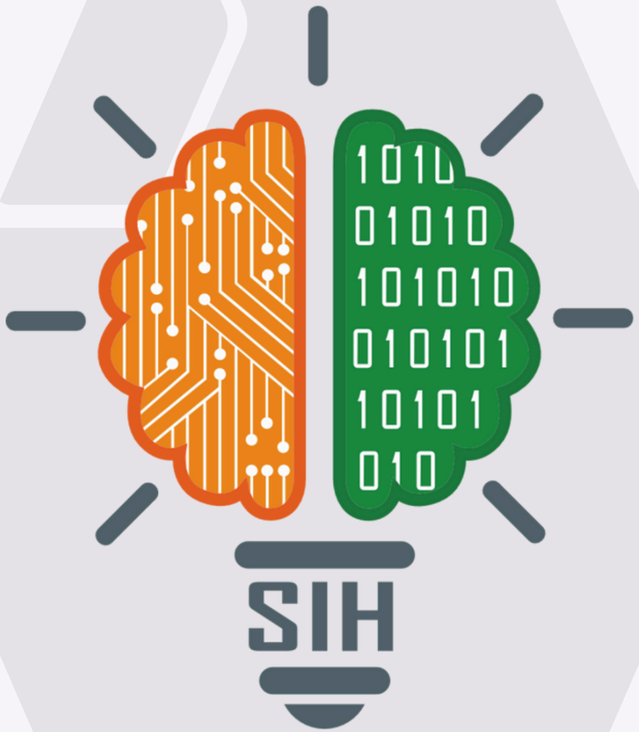
SMART INDIA HACKATHON 2025

- **Problem Statement ID –** 25002
- **Problem Statement Title-** Smart Tourist Safety Monitoring & Incident Response System using Al, Geo-Fencing, and Blockchain-based Digital ID
- **Theme-** Travel And Tourism
- **PS Category-** Software
- **Team ID-**
- **Team Name -** HashBrowns



SafeTour AI: Blockchain-Powered Tourist Protection Platform

SMART INDIA HACKATHON 2025

What is the problem?

The challenging terrains of North East India creates unsafe conditions for tourists.

Proposed Solution

Empowering tourists with secure blockchain IDs, AI-driven hazard probability computation and alert systems based on geo-fencing.

Expected Results

Increase in success rate

Increase in efficiency of identity verification

Reduction in search area

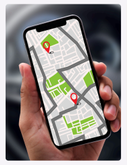
"Hash It. Build It. Launch It"

Click here to make it clear

How we address the current issue?

- Geo-mapping to map out restricted and high risk zones
- AI for anomaly detection and tourist safety score
- Blockchain for user data security
- Instant E-FIR creation if a person's communication fails and is deemed missing

Uniqueness And Innovation



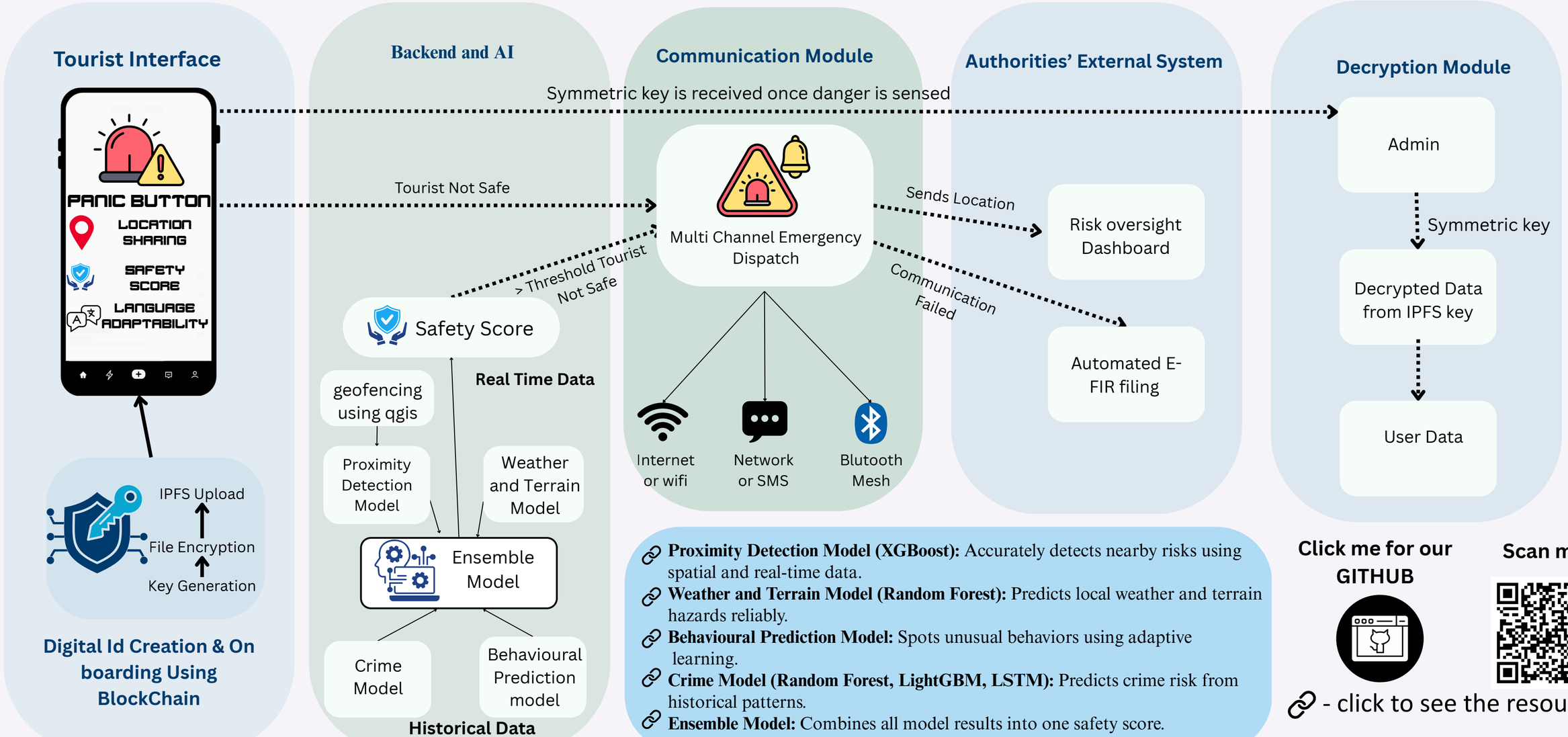
Live GPS, calamity feeds, weather alerts, danger area proximity, crime—risk alerted, you're protected; through our AI ensemble model.

Employ multiple communication channels as fallback during network failures.

Safe and unseen if you wish to be, until you enter the danger scene.

TECHNICAL APPROACH

ARCHITECTURE DIAGRAM



- **Proximity Detection Model (XGBoost):** Accurately detects nearby risks using spatial and real-time data.
- **Weather and Terrain Model (Random Forest):** Predicts local weather and terrain hazards reliably.
- **Behavioural Prediction Model:** Spots unusual behaviors using adaptive learning.
- **Crime Model (Random Forest, LightGBM, LSTM):** Predicts crime risk from historical patterns.
- **Ensemble Model:** Combines all model results into one safety score.

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Feasibility Analysis & Risk Management

Technical Feasibility

95%

Existing Infrastructure: 95% of components use proven technologies (React, Node.js, Polygon, GPS)

Government Support: Aadhaar API, ERSS-112 integration already available

Mobile Penetration: 750M+ smartphone users in India, growing 15% annually

Risk and mitigation

Network Connectivity

- **Challenge:** Limited internet in remote areas
- **Solution:** Multiple modes of communication

Data Privacy Concerns

- **Challenge:** Tourist location tracking resistance
- **Solution:** Privacy-by-design architecture with user-controlled data sharing permissions

System Integration

- **Challenge:** Multiple Risk Factors
- **Solution:** Ensemble model consisting of multiple risk models

Market Validation

15.2%

Market Growth

Annual growth rate in smart tourism technology sector globally

5

Similar Stories

Similar systems without blockchain deployed successfully globally

Scalable Architecture

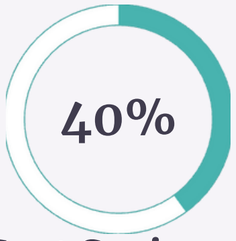
Cloud-based system designed to handle millions of concurrent tourists with auto-scaling capabilities and distributed processing.

IMPACT AND BENEFITS

Social Impact

Enhanced Safety - 65% reduction in preventable tourist incidents	**Faster Emergency Response - 60% improvement in response times**	**Cultural Integration - Multi-language support increases accessibility**

Economic Benefits

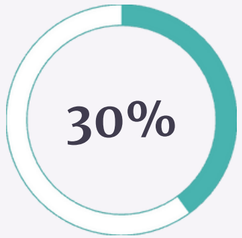


Cost Savings

Operational cost reduction through AI and blockchain automation

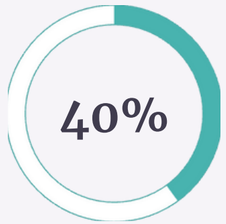
Revenue Growth

Tourism revenue boost from improved safety and reliability



Tourist Confidence

Increase in repeat visits from enhanced safety experiences



New Jobs

New opportunities in tech support and system management

Environmental Benefits

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Advanced geolocation technology and digital infrastructure **SDG - 9**	Early warning systems for health and safety risks **SDG - 3**	Tourism Sector Development and Job Creation **SDG - 8**	Provide legal identity for all **SDG - 16**

RESEARCH AND REFERENCES

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