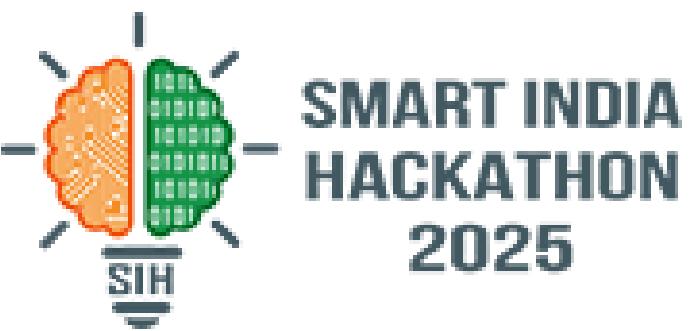


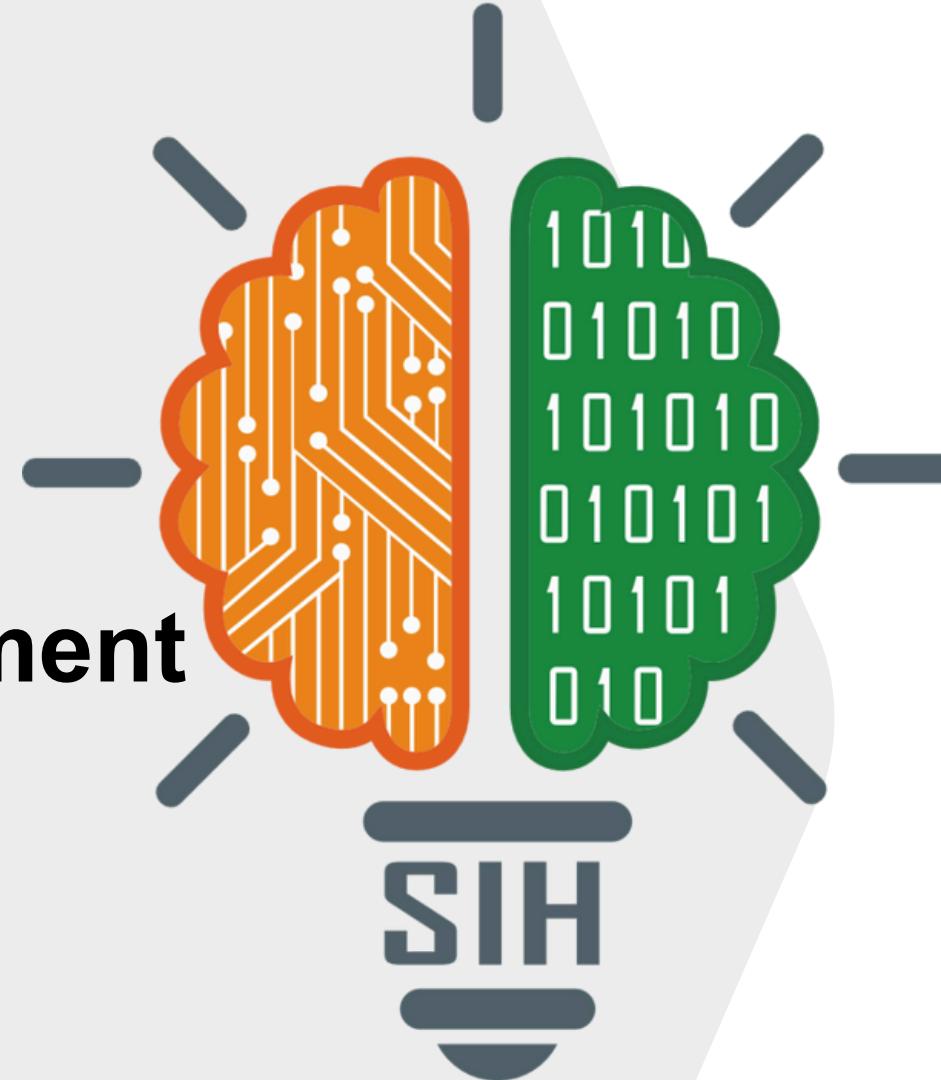
SMART INDIA HACKATHON 2025



- Problem Statement ID –SIH25073
- Problem Statement Title- AI-Powered Mobile

Platform for democratizing sports talent Assessment

- Theme- Fitness and Sports
- PS Category- Software
- Team ID-
- Team Name- STACKMORPH



AI sports Evaluator

Problem Statement

India has a lot of hidden sports talent, especially in villages. But many athletes are not discovered because there's no proper tracking system. Government and coaches don't know where talent is coming from → so resources are not used properly.

Proposed solution

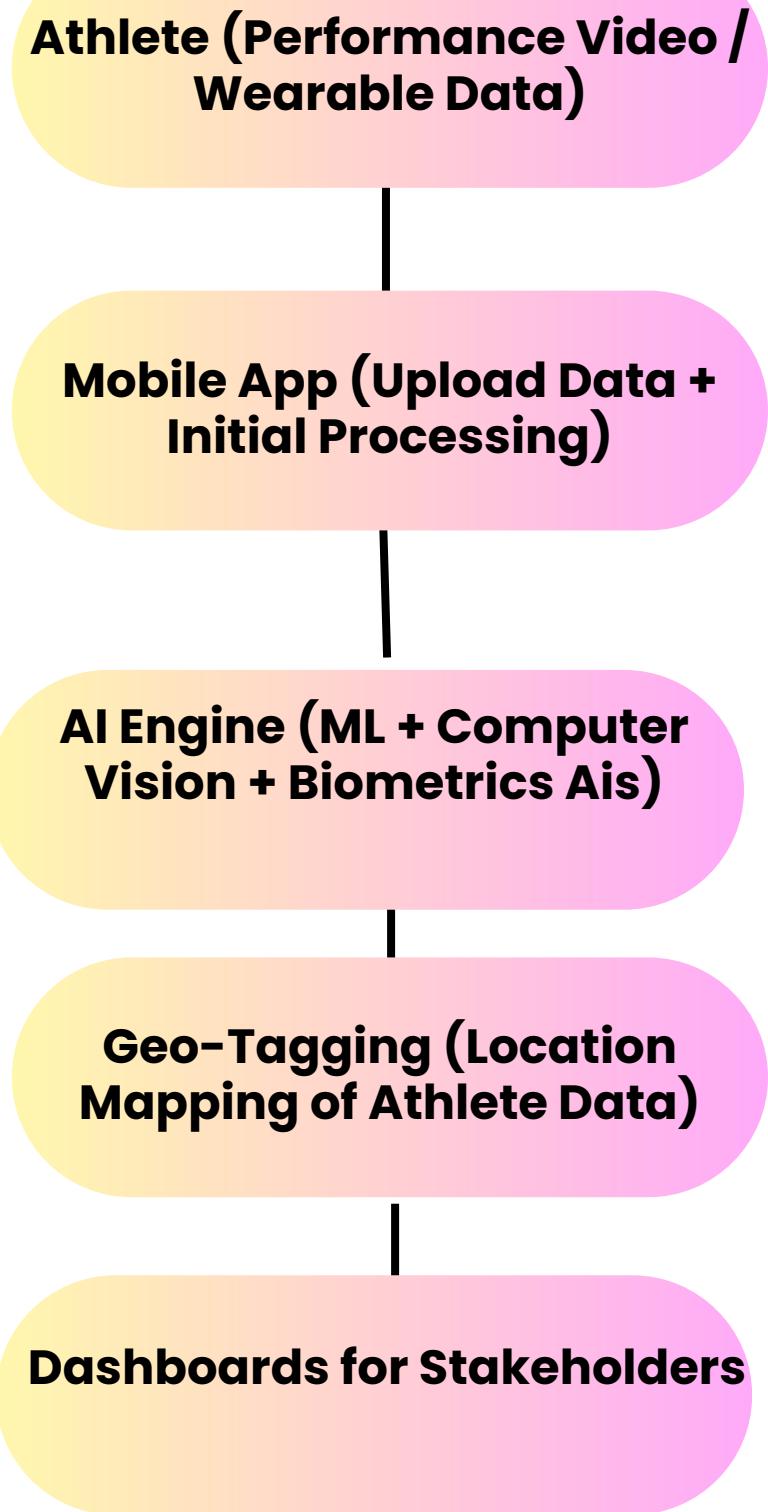
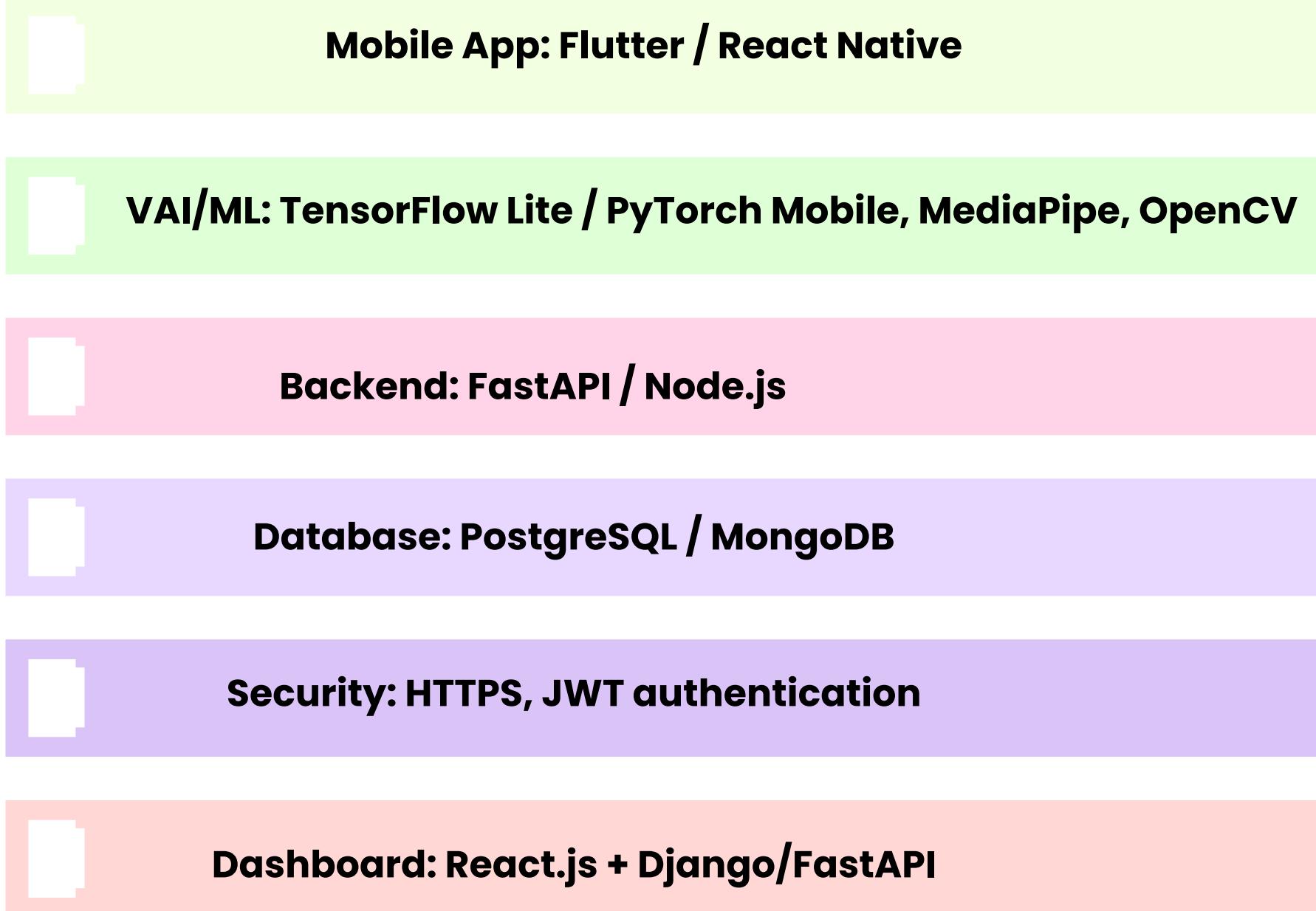
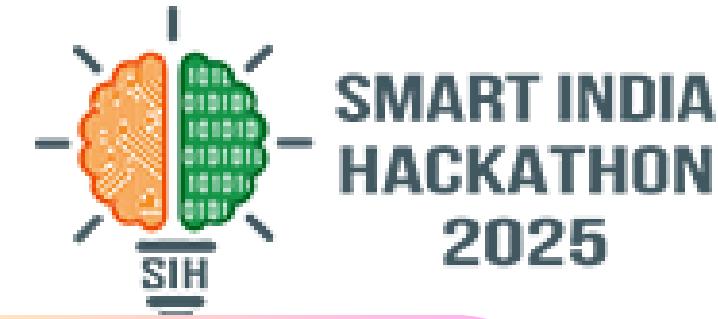
- ❖ A mobile app for athletes to record and upload test performances.
- ❖ On-device AI analyzes performance (jump height, sit-ups count, run timing).
- ❖ Cheat detection ensures fairness.
- ❖ Offline mode → works without stable internet.
- ❖ Secure data upload to SAI servers.
- ❖ Dashboard for officials to view verified results.

Uniqueness and Innovation

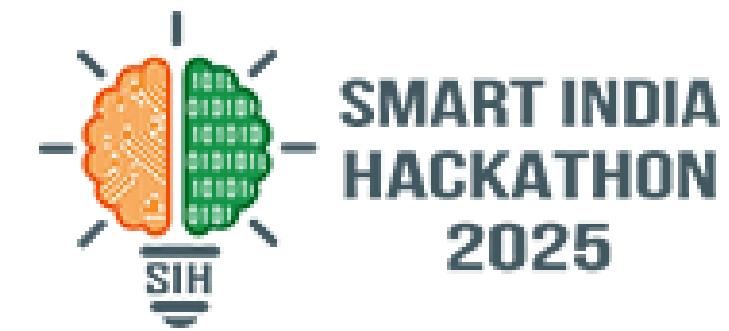
- ❖ AI-based cheat detection
- ❖ Offline video analysis using TensorFlow Lite / PyTorch Mobile.
- ❖ Auto-test segmentation
- ❖ Gamified interface with leaderboards & badges.
- ❖ Instant benchmarking vs age/gender performance standards.



TECHNICAL APPROACH



FEASIBILITY AND VIABILITY



Feasibility of the Idea

Technology : Yes, AI, mobile apps, and maps already exist.

Cost : Yes, we can use free/open-source tools → less money needed.

Usefulness : Yes, athletes, coaches, and govt will use it.

Challenges & Risks

1. **Data Problem** → Some athletes may not have good internet or videos.
2. **AI Mistakes** → AI may misread some sports actions.
3. **Privacy** → Athlete data must be safe.
4. **People's Mindset** → Some may not trust AI and prefer old methods.
5. **Infrastructure** → Rural areas may lack internet.

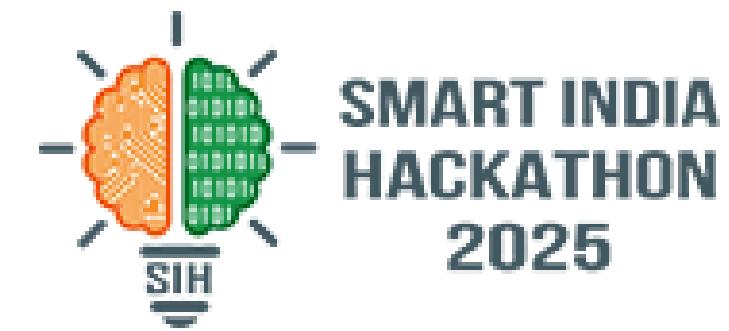
Solutions / Strategies

1. **Data Problem** → Allow offline upload, set up local sports centers.
2. **AI Mistakes** → Train AI with Indian data, keep improving.
3. **Privacy** → Use secure cloud and blockchain.
4. **People's Mindset** → Show benefits with workshops and success stories.
5. **Infrastructure** → Partner with govt programs (Digital India, Khelo India).





IMPACT AND BENEFITS



IMPACT:

- Athletes → Get recognition, even from small villages.
- Coaches → Can see real data, train players better.
- Government → Knows where to build sports centers.
- Sponsors → Find hidden talent to support early
- Youth/Public → More interest in sports, healthier lifestyles.

BENEFITS:

SOCIAL

- Everyone gets equal chance (no bias).
- Promotes sports culture across India.

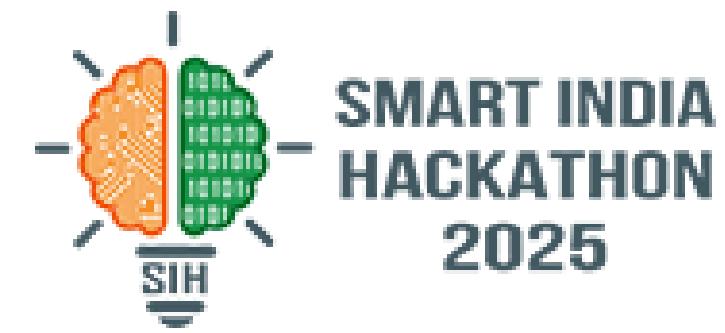
ECONOMIC

- Saves scouting cost & time.
- Brings sponsorship and jobs in sports.

ENVIRONMENTAL

- Less travel needed for scouting → saves fuel.
- Smart use of resources → no wastage in building stadiums.

RESEARCH AND REFERENCES



1. AI-Based Athlete Performance Analysis

<https://ieeexplore.ieee.org/document/10763062>

2. Mobile Platforms for Sports Analytics

<https://ieeexplore.ieee.org/document/7016249>

3. Artificial Intelligence in Talent Identification and Development in Sport

https://www.researchgate.net/publication/383673160_Artificial_Intelligence_in_Talent_Identification_and_Development_in_Sport

4. Existing Platforms / Tools

CoachAI - <https://www.coachai.com>

UPLIFT - <https://www.upliftai.com>