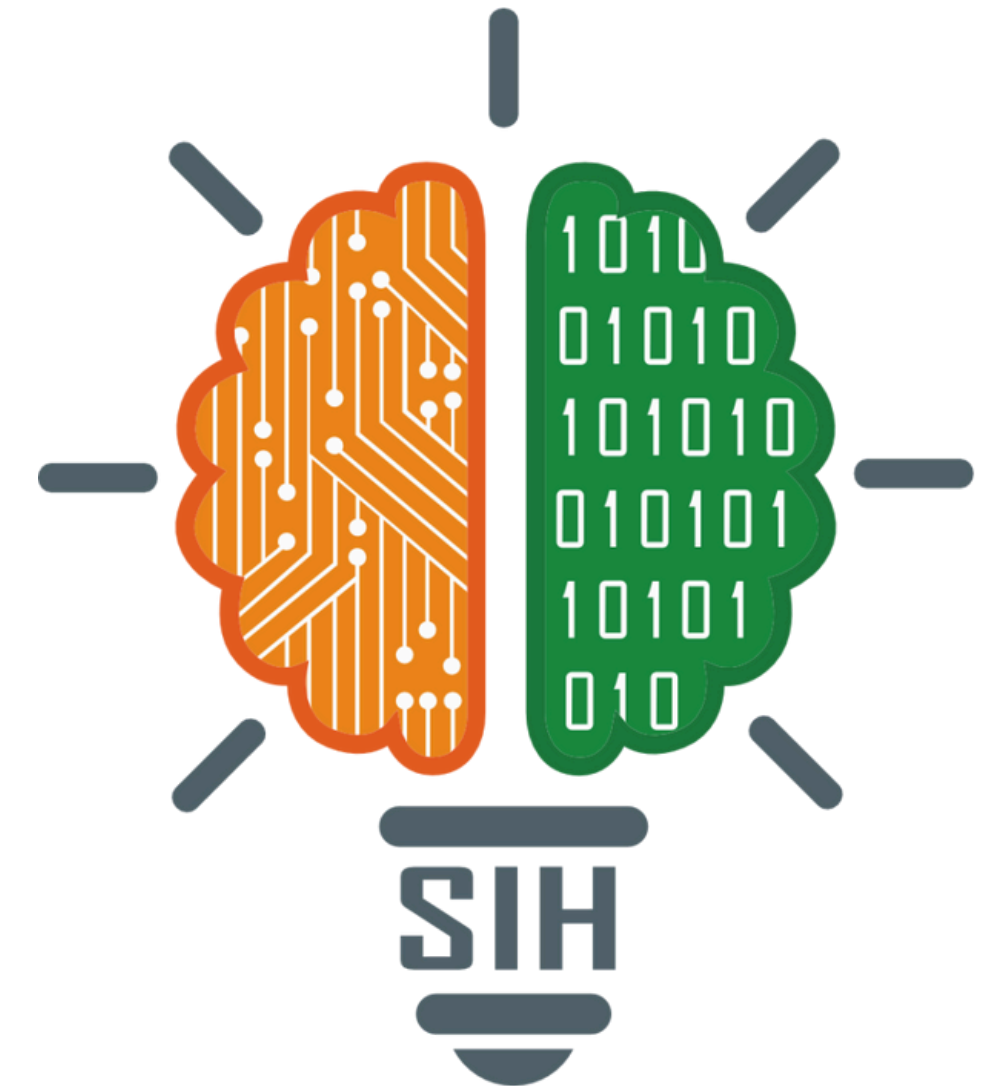
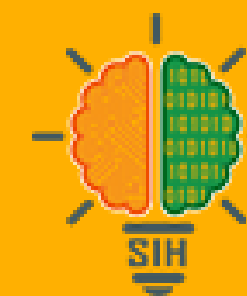


- Problem Statement ID – SIH25034
- Problem Statement Title-AI-Based Internship Recommendation Engine for PM Internship Scheme
- Theme- SMART EDUCATION
- PS Category- Software
- Team ID-
- Team Name (Registered on portal)-HEXAFORCES

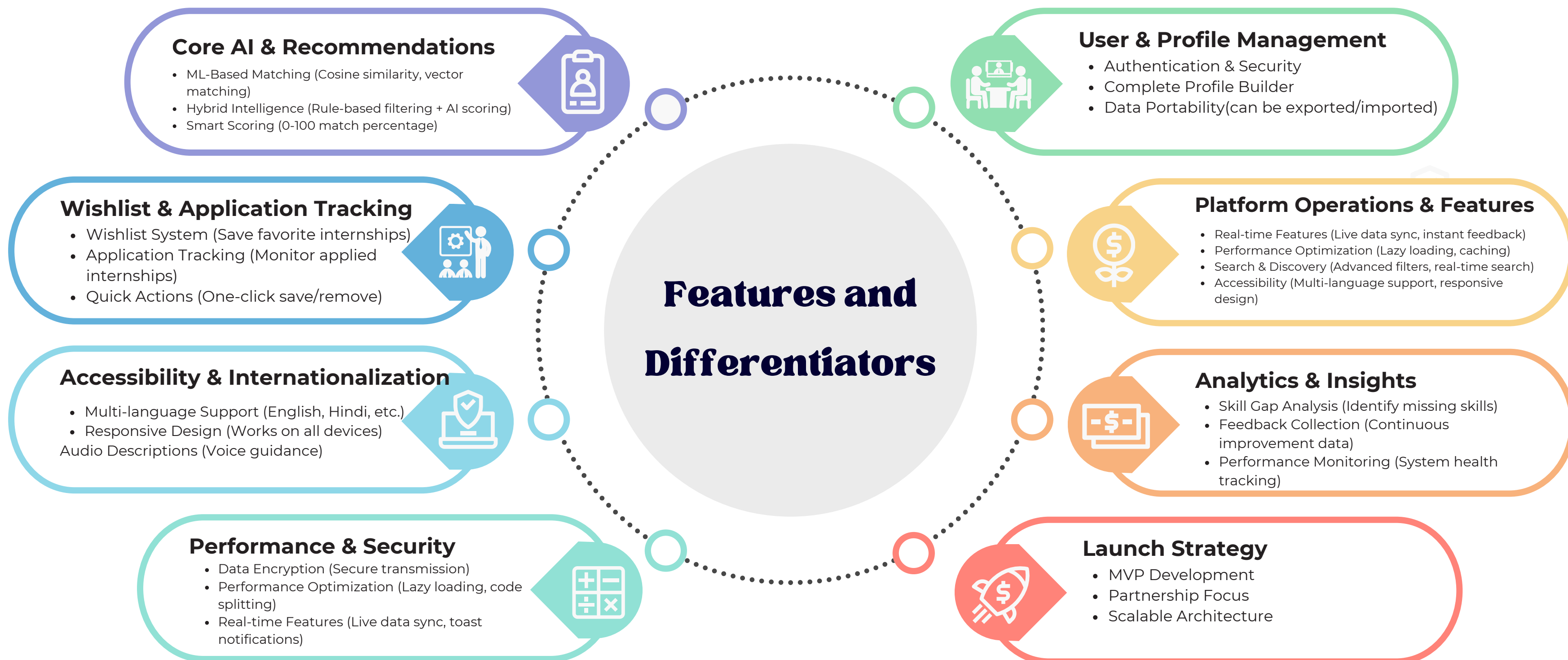




IDEA TITLE

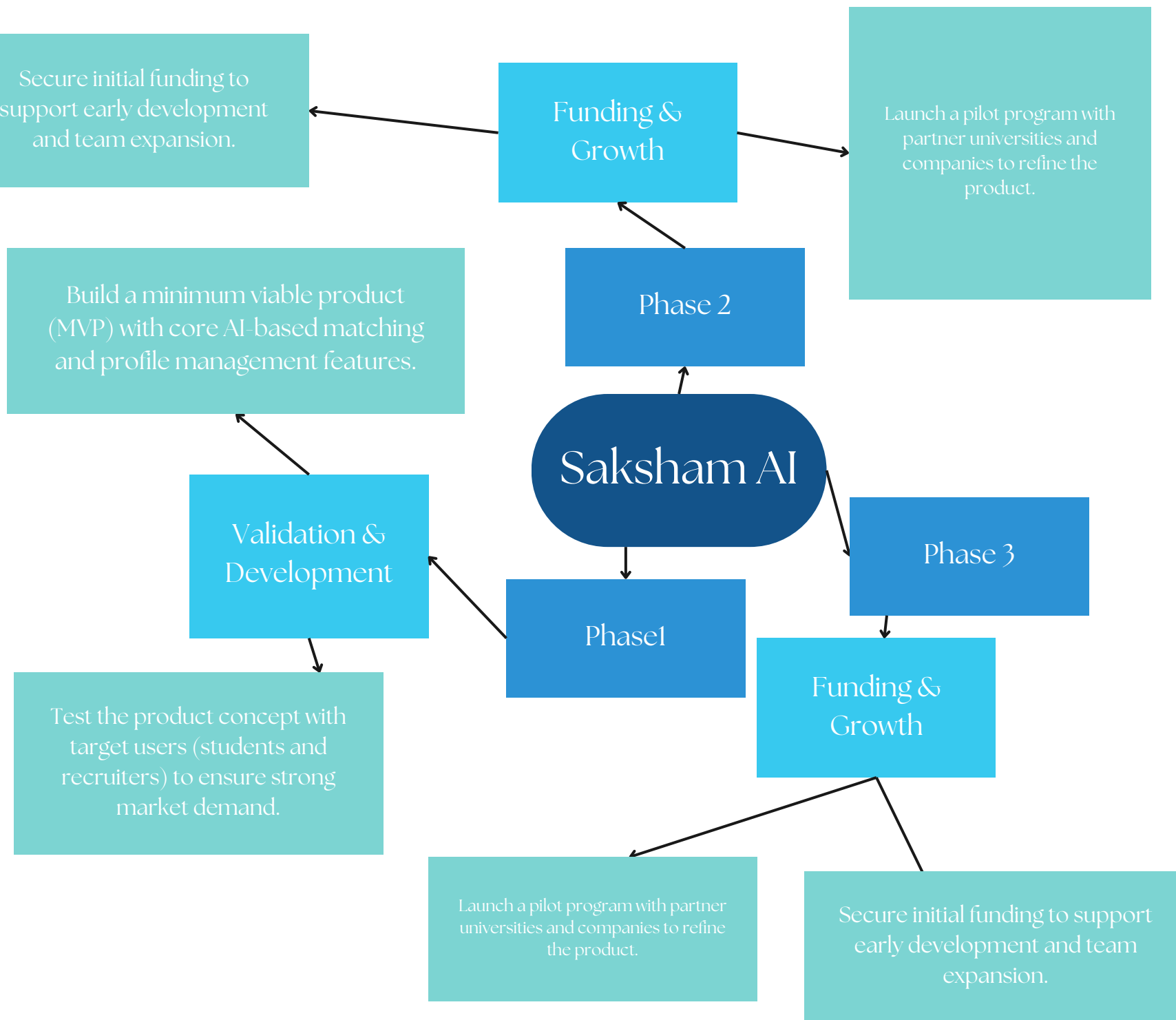
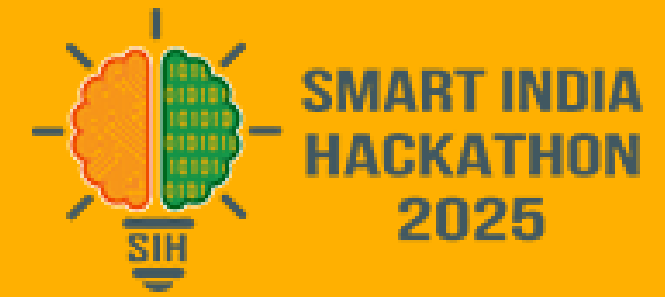


SMART INDIA
HACKATHON
2025





TECHNICAL APPROACH

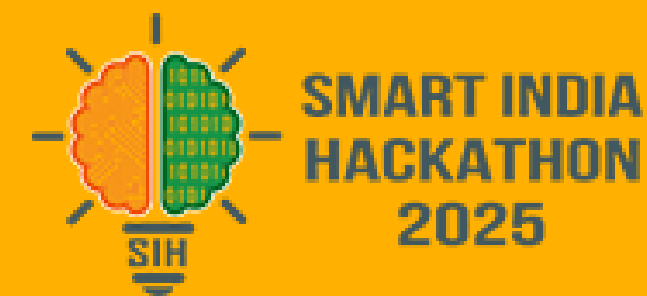


FRONTEND	REACT	TYPESCRIPT	TAILWIND	SHADCDN	VITE
BACKEND	NODEJS	FIREBASE	RESTapi	VITE	MONGO DB
AI/ML	COSINE SIMILARITY	VECTOR MATCHING	RULE BASED FILTERING	NLP	LLAMA
MISC	GOOGLE TRANSLATE API	GEMINI API	PWA+SERVICE WORKERS	GEOLOCATION API	SPEECH SYNTHESIS

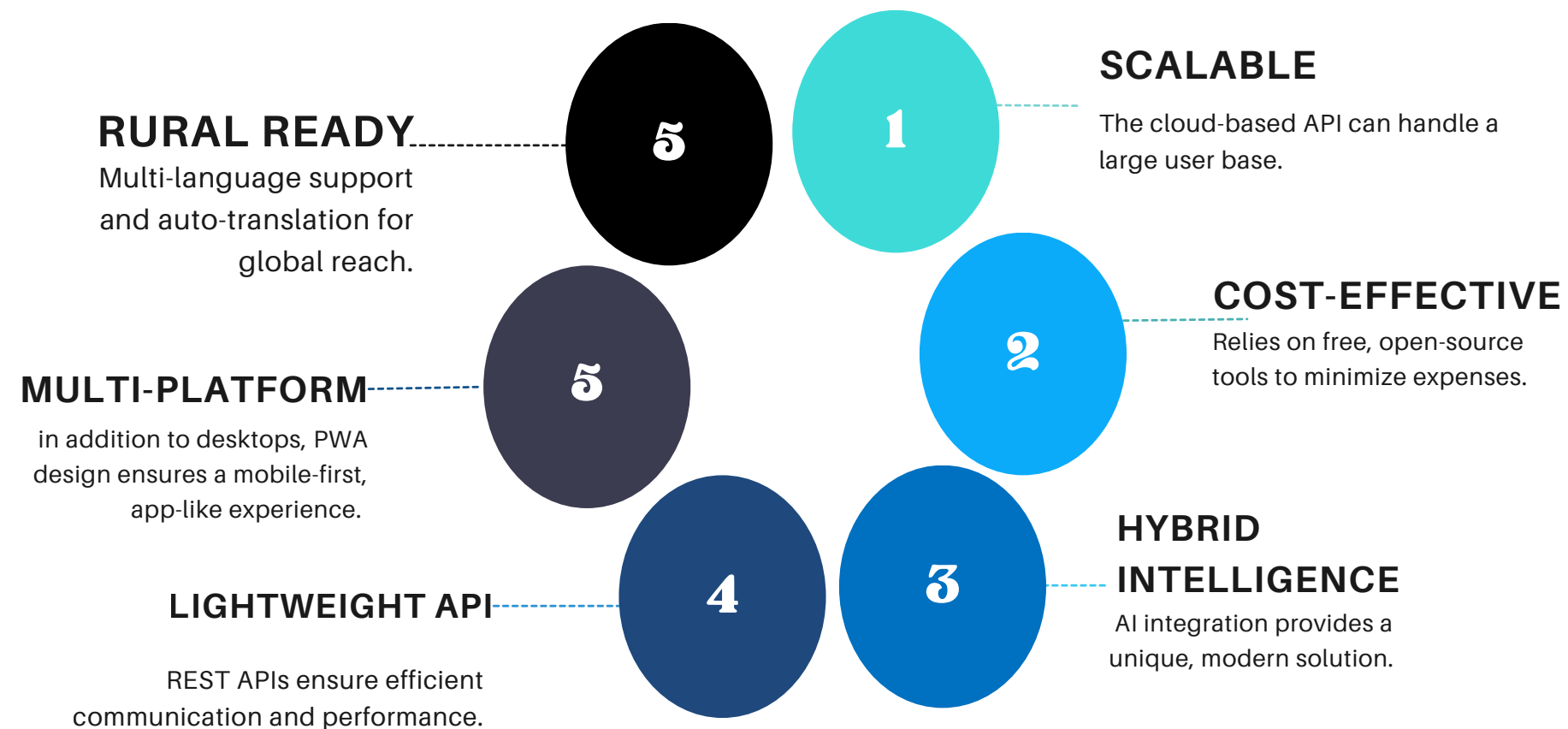
Tech Stack used



FEASIBILITY AND VIABILITY

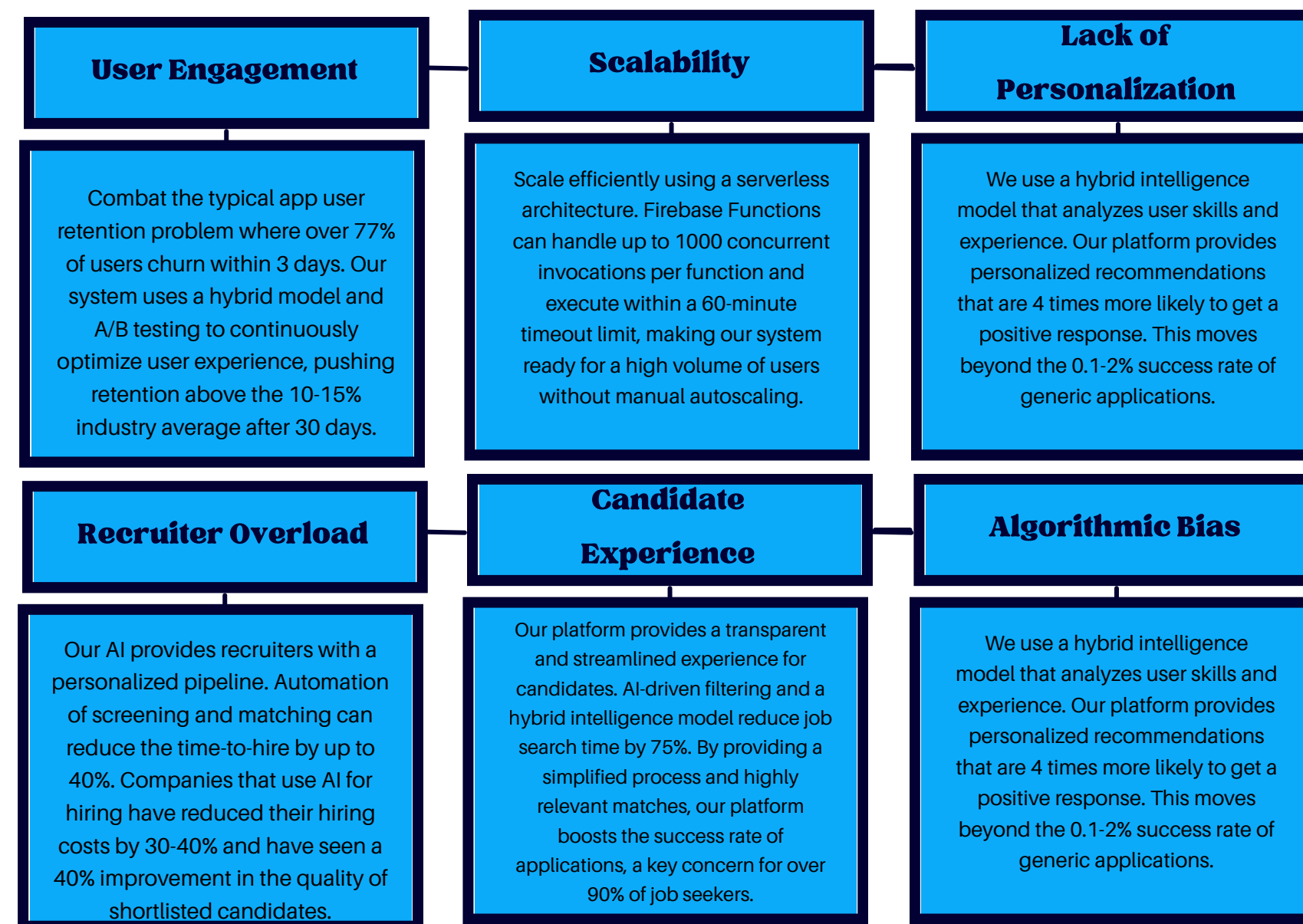


Viability and Feasibility



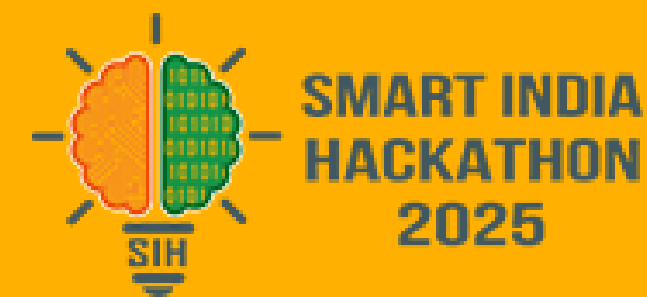
- **Market Demand:** A government scheme can address a massive talent pool. Over 3.3 crore youth have already been trained under similar government programs, and the PM Internship Scheme aims to engage 1 crore youth in internships, demonstrating a huge market need.
- **Technical Feasibility:** Our solution is built on a scalable, open-source technology stack. The use of a serverless architecture, such as Firebase, eliminates the need for expensive hardware, and the core AI algorithms are already developed and viable.
- **Economic Feasibility:** This project has minimal startup costs. By leveraging free tiers from cloud providers and open-source APIs, we can build a prototype at virtually no cost. We can also partner with companies for CSR funding to sustain the project in the long term.
- **Operational Readiness:** The platform can be integrated with India's existing Digital Public Infrastructure (DPI). The government has already successfully managed large-scale digital initiatives, like the CoWIN platform which administered over 2.2 billion vaccines, proving the operational capacity for a nationwide program.

Challenges & Solutions





IMPACTS AND BENEFITS



Students



We give students a massive edge in the job hunt. Our AI provides a curated shortlist of top matches, saving them time and increasing their chances of a positive outcome.

Companies



This is a game-changer for hiring. The AI-powered platform helps recruiters find the best-fit talent faster by reducing the pain of sifting through irrelevant resumes.

Society



We are creating a fairer and more equitable hiring system. Our objective AI matching helps reduce the unconscious bias that often prevents talented individuals from getting opportunities.

Benefits

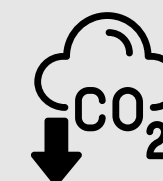
Impact

Economic



By streamlining the hiring process for everyone, we get talent to the right places quicker. This boosts economic activity and growth.

Environmental



Our solution is all about inclusivity. By providing a platform that's multilingual and easy to use, we can reach people from diverse backgrounds, which is a huge step for digital inclusion.

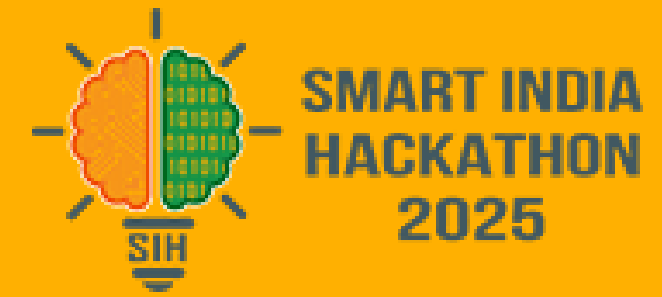
Social



We are creating a fairer and more equitable hiring system. Our objective AI matching helps reduce the unconscious bias that often prevents talented individuals from getting opportunities.



RESEARCH AND REFERENCES



Research

Academic Research: We based our technical approach on research in AI and recommender systems.

- Cosine Similarity & Vector Matching: Core algorithms for matching user skills and internship descriptions.
- Hybrid Recommender Systems: Combining different models to overcome the "cold start problem" for new users.

Governmental Reports & Initiatives: Our project aligns with national goals and leverages existing government frameworks.

- IndiaAI Mission: The strategic initiative to foster AI innovation and talent in India.
- Digital Public Infrastructure: Platforms like Aadhaar and DigiLocker form the backbone of our secure, scalable system.

APIs & Technologies: We are building our solution using proven, modern technologies.

- Firebase SDK: For a scalable, serverless backend.
- Google Translate API: To provide multi-language support.
- Python (scikit-learn): Core libraries for our AI/ML model development.

Inspiration & Case Studies: Our approach is validated by successful models in both the private and public sectors.

- AI-driven Recruitment Platforms: We have studied how top companies are successfully using AI for talent acquisition.

Academic Research:

- <https://arxiv.org/abs/2304.07683>
- <https://talentbusinesspartners.com/articles/how-machine-learning-recruitment-actually-saves-70-screening-time-2025-guide/>

Governmental Reports & Initiatives:

- <https://indiaai.gov.in/>
- <https://www.pib.gov.in/PressReleasePage.aspx?PRID=2113760>

APIs & Technology Documentation:

- <https://firebase.google.com/docs>
- <https://cloud.google.com/translate/docs>
- [Gemini API - The official documentation for using Gemini's API for internship data and intelligent features, which would be a core component of the platform's AI functionality.](#)

Inspiration & Case Studies:

- <https://absoluteinternship.com/blog/how-ai-will-change-internships-in-2025/>
- <https://www.digitalindia.gov.in/>

References