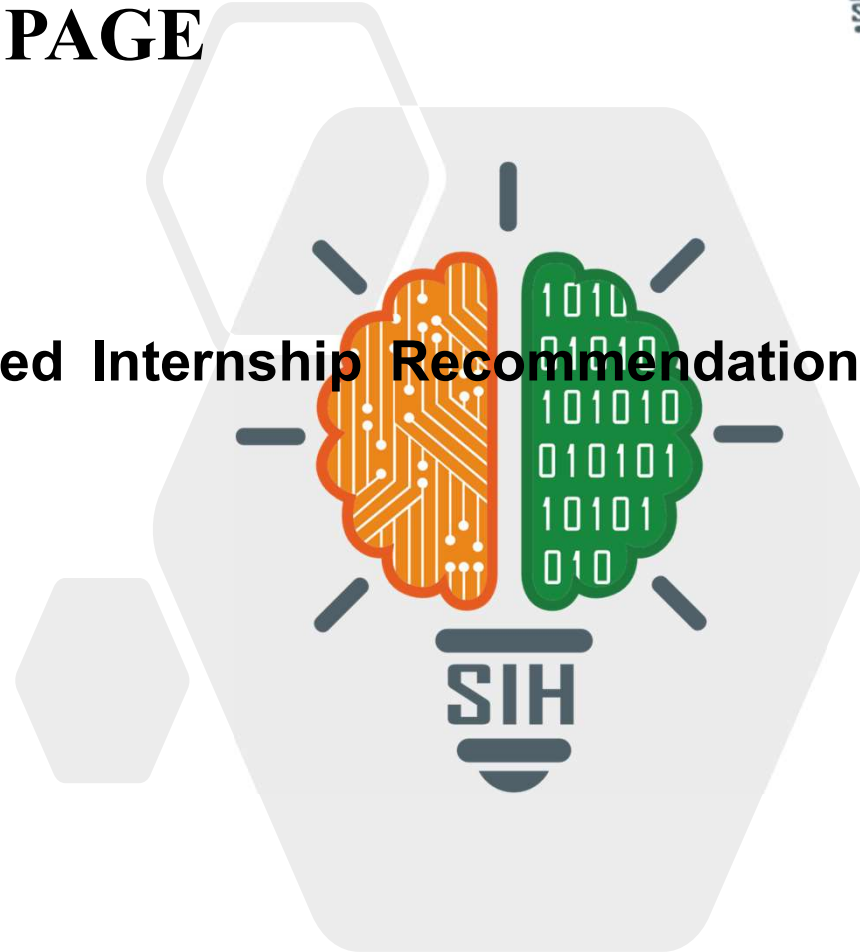


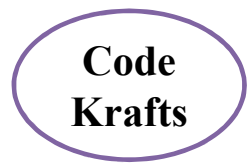
SMART INDIA HACKATHON 2025



TITLE PAGE

- **Problem Statement ID –25034**
- **Problem Statement Title- AI Based Internship Recommendation Engine for PM Internship Scheme**
- **Theme-Smart Education**
- **PS Category- Software**
- **Team ID-**
- **Team Name-CodeKrafts**





Internship Recommendation Engine



Introduction:

The AI-Based Internship Recommendation Engine aims to help students find the most suitable internships under the PM Internship Scheme by analyzing their skills, interests, and academic background. It leverages artificial intelligence to provide personalized and efficient internship recommendations for better career growth.

❖ Internship Recommendation Engine

Candidate Profiling → Collect skills, education, goals, interests

AI + NLP Matching → Analyze internship descriptions & match profiles

Top Suggestions → Recommend 3–5 best internships with match score

Explainable AI → Show reason why internship fits the candidate

Feedback Loop → Learn from user ratings to improve results

Career Roadmap → Guide students with step-by-step growth path

TECHNICAL APPROACH



TECH STACK:

- **Frontend:** HTML, CSS , JS , TailwindCSS/Bootstrap
- **Backend:** Python + Flask
- **Database:** MySQL
- **Recommendation Engine :** Rule-based + TF-IDF (Scikit-learn)
- **Localization:**

Google Translate API → regional language support

Minimal text + icons → to help low-digital literacy users

FEASIBILITY AND VIABILITY



- **Smart Matching:** AI can match interns to roles based on skills and preferences.
- **Personalized Recommendations:** AI-driven platforms can suggest suitable internships to candidates.
- **Data-Driven Insights:** AI can analyze trends and feedback to improve the scheme's effectiveness.

Solutions

- Collect complete student profiles.
- Encrypt data and follow security rules.
- Use hybrid AI models and update regularly.
- Use APIs for real-time data from portals.
- Show reason for recommendations and get feedback.

IMPACT AND BENEFITS



Impact

- Smarter internship allocation
- Increased student satisfaction
- Better alignment of skills & roles
- Data-driven decision making
- Improved success of PM Internship Scheme

Benefits

- Personalized recommendations
- Saves time & effort for students
- Equal and fair opportunity for all
- Boosts skill development & career growth
- Continuous learning through feedback

- [1] Prime Minister's Internship Scheme, "Official Portal," Govt. of India. [Online].
Available: <https://internship.aicte-india.org/>
- [2] Y. Zhang and X. Chen, "Explainable recommendation: A survey and new perspectives," *Frontiers of Computer Science*, vol. 12, no. 6, pp. 1–18, 2018.
- [3] J. Chen, H. Dong, and Y. Zhao, "Deep reinforcement learning in recommender systems: A survey," *Frontiers of Computer Science*, vol. 17, no. 1, pp. 1–16, 2023.
- [4] M. Afsar, T. Crémilleux, and N. Usunier, "Reinforcement learning based recommender systems: A survey," *ACM Computing Surveys*, vol. 54, no. 7, pp. 1–38, 2021.