

CAMPUS PULSE HACKATHON' 25

PROBLEM STATEMENT: An AI-driven platform for student career-counselling.



TITLE: SkillBridge AI Career-Counsellor

TEAM NAME: PLACIFY

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Solution Overview

Our solution is built on the **Track – Train – Suggest** framework, delivering a structured, AI-driven pathway to placement success.

Track

Uses advanced NLP to analyze resumes, LinkedIn profiles, GitHub activity, and academic data, intelligently mapping interests to suitable career roles with precision scoring.

Train

Bridges identified skill gaps with AI-curated learning resources and comprehensive weekly mock tests across technical subjects, aptitude assessments, and AI-simulated HR interviews, all supported by detailed feedback analytics.

Suggest

Combines curriculum analysis, real-time industry trends, and individual student profiles to recommend optimal electives, minors, certifications, and career paths through a continuous AI-powered feedback loop.

Problem Addressed

Student Challenges vs Our Solutions

Student Challenge	Traditional Method	SkillBridge AI Solution
Placement Ready Assessment	Subjective evaluation, <ul style="list-style-type: none">• No clear metrics,• Generic preparation	Quantifiable data-driven evaluation, <ul style="list-style-type: none">• Curated hottest interview questions,• Real-time preparedness tracking
Academic-Career Alignment	Generic course recommendations, <ul style="list-style-type: none">• Limited career exploration,• Static guidance	Akinator-style career guide, <ul style="list-style-type: none">• Domain discovery through AI,• Semester-wise elective suggestions
Industry Trend Awareness	Outdated curriculum, <ul style="list-style-type: none">• Static skill requirements,• Manual research needed	Continuous industry data analysis, <ul style="list-style-type: none">• Real-time in-demand skills updates,• Dynamic market intelligence
Personal Learning & Mentoring	One-size-fits-all advice, <ul style="list-style-type: none">• Limited counselor availability,• No progress tracking	Customized learning roadmap, <ul style="list-style-type: none">• 24/7 AI chatbot mentor,• Daily coding reminders with streaks

Key Problem Statistics

- **85%** of students feel unprepared for job interviews despite academic completion
- **67%** choose electives without understanding career implications
- **78%** lack quantifiable metrics for placement readiness assessment
- **89%** of career platforms provide outdated industry information
- **500:1** average student-to-counselor ratio makes personalized guidance impossible

 *Survey Source: Primary data collected from college students via Google Form (2025).*

Innovation & Uniqueness

Our solution redefines placement readiness by replacing scattered tools with a single, AI-driven career coach that adapts to every student's journey.

- **Integrated Dashboard:** Consolidates CGPA, coding profiles (LeetCode, HackerRank, GitHub), LinkedIn evaluation, and resume analysis into one seamless interface with real-time performance metrics.
- **Holistic AI Assessment:** Evaluates not only technical skills but also LinkedIn profile strength, corporate communication tone, and soft skills through advanced AI-simulated HR interviews with detailed feedback.
- **Actionable Guidance:** Transforms raw data into personalized roadmaps with automated reminders and weekly mock tests to build consistent, industry-ready habits and measurable progress tracking.
- **Dynamic Career Recommender:** Uses an Akinator-style intelligent engine to map student interests, strengths, and aspirations to electives, minors, and trending career tracks with precision matching.
- **Reverse-Engineered Pathways:** Students can select a dream company or role, and the system backtracks the exact skills, certifications, and projects required, turning aspirations into concrete, actionable plans.

Technical Approach

Web Development Stack

- **Frontend:** React / Next.js
- **Backend:** FastAPI (Python) for high-performance API development
- **Database:**
 - PostgreSQL for structured student data and performance metrics
 - MongoDB for unstructured data (skills analysis, job trends, feedback)

AI/ML Technologies

- **Natural Language Processing:** Hugging Face transformers, spaCy for resume and profile analysis
- **Machine Learning:** scikit-learn, TensorFlow, XGBoost for predictive modeling and recommendation engines
- **Conversational AI:** Gemini API (LLM) for intelligent chatbot interactions and dynamic content generation

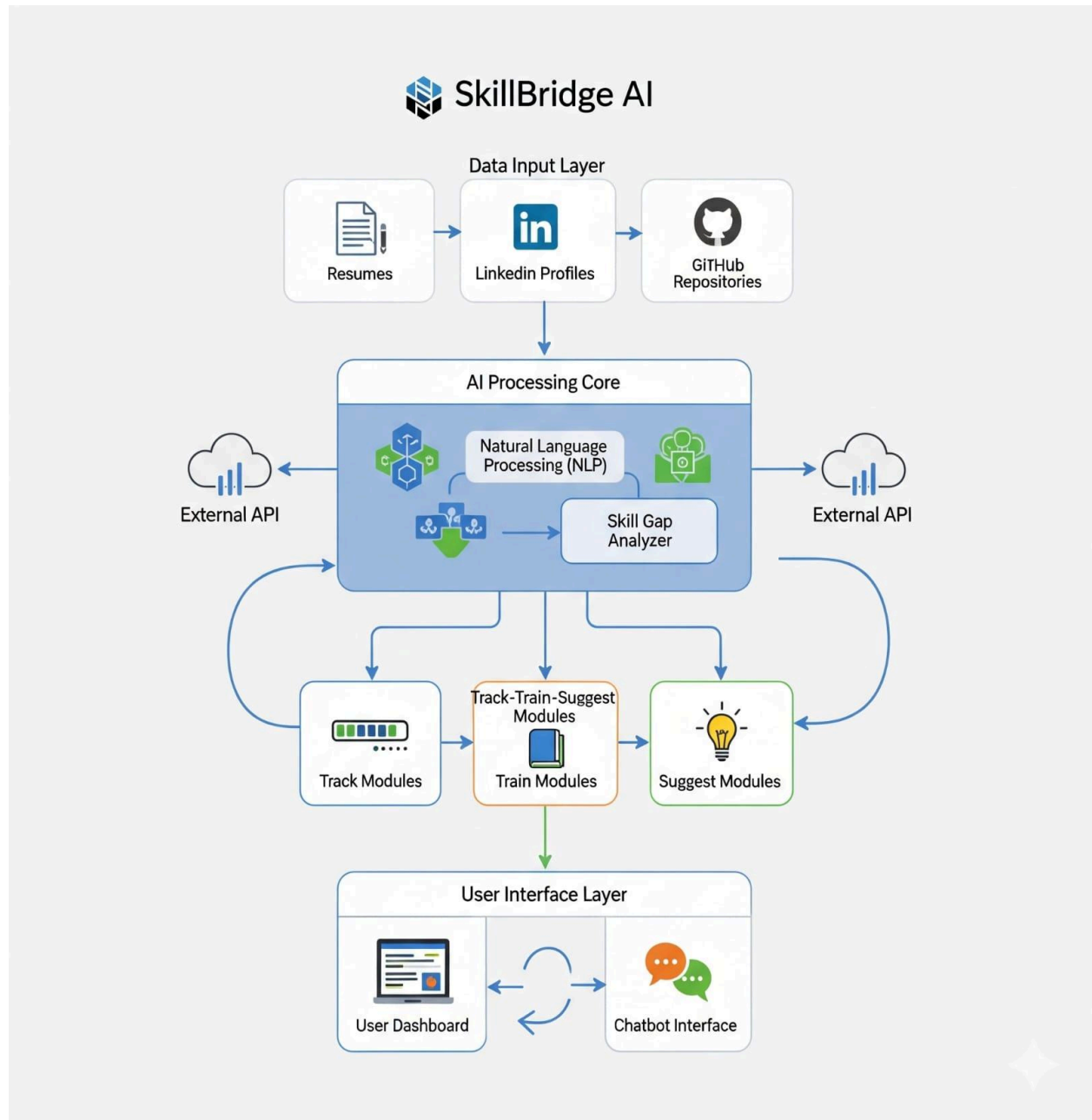
External Integrations

- **Job Market Data:** LinkedIn Jobs API for real-time market intelligence
- **Learning Resources:** Coursera/Udemy APIs for course recommendations
- **Coding Platforms:** GitHub API, LeetCode API for skill assessment integration
- **Professional Networks:** LinkedIn API for profile analysis and networking insights

System Architecture & Workflow

SkillBridge AI: Track-Train-Suggest Framework

This comprehensive architectural diagram illustrates our end-to-end AI-driven career counseling system:



Impact & Future Scope

- **Scalable** to universities across India & beyond
- **Helps students** discover careers earlier (1st year onwards)
- **Improves** placement ratios with data-driven readiness
- **Future:** Integration with virtual internships, alumni mentors, company tie-ups

Thank You