DJS INFOMATRIX

DJS NSDC

HACKOPS

PROBLEM STATEMENTS

WEB PS 1: Online Training & Placement Cell Platform

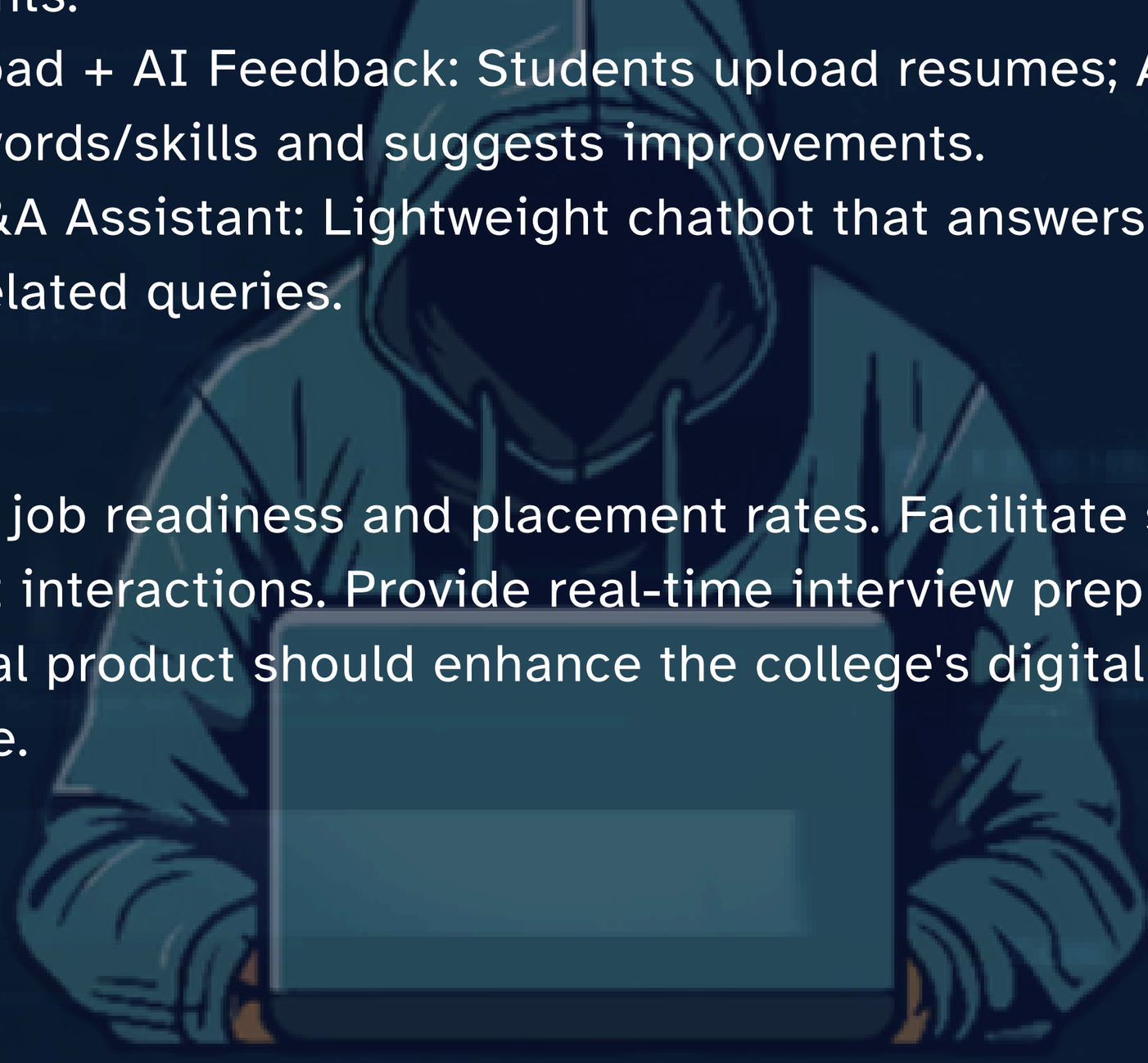
Problem Statement:
Colleges often struggle to effectively connect students with recruiters, leading to low job readiness and placement rates. Students lack access to comprehensive training programs, resume guidance, interview preparation, and direct interaction with employers. A dynamic website can bridge this gap by providing user-friendly resources, real-time interactions, and AI-powered tools to enhance job preparation and recruiter engagement.

Goal:
Design a scalable online platform for training and placement that improves student employability, facilitates recruiter-student interactions, and includes features like AI resume scanning, mock interviews, and virtual job fairs, with responsive UI/UX prototype

C**ontent :**
Create a dynamic, user-friendly website that bridges students and recruiters. Key features include:

- User-Friendly Navigation: Simple and responsive design for easy access.
- Training Programs: Training materials (documents, videos, schedules).
- Placement Resources: Company profiles, job postings, and event announcements.
- Resume Upload + AI Feedback: Students upload resumes; AI scans for missing keywords/skills and suggests improvements.
- AI Career Q&A Assistant: Lightweight chatbot that answers common placement-related queries.

Aim:
Improve student job readiness and placement rates. Facilitate seamless recruiter-student interactions. Provide real-time interview prep and resume analysis. The final product should enhance the college's digital presence and community sense.



WEB PS 2: HR EdTech Platform for Gen Z Careers

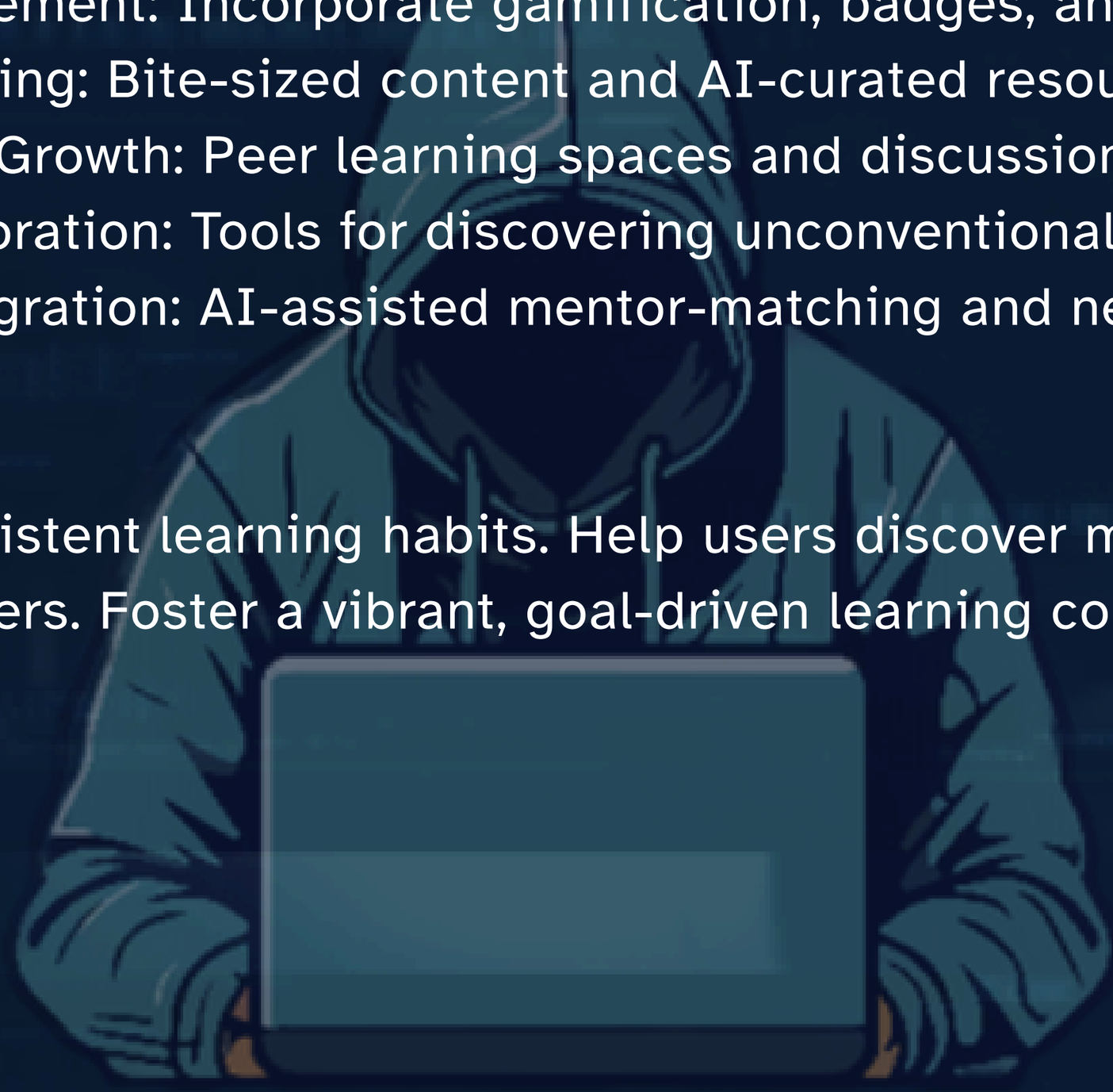
Problem Statement:
Gen Z learners face challenges in maintaining consistent career development due to short attention spans, lack of engaging content, and limited guidance on modern career paths. Traditional HR education platforms are often dull and fail to foster community or personalized learning. An interactive EdTech platform can address this by incorporating gamification, micro-learning, and AI-driven features to make career exploration fun and communal.

Goal:
Develop an HR learning platform tailored for Gen Z that encourages daily engagement through badges and streaks, provides bite-sized AI-curated content, supports peer communities, explores unconventional careers, and integrates mentor matching.

Content:
Develop an engaging, interactive HR learning and career guidance platform tailored for Gen Z. Key features include:

- Daily Engagement: Incorporate gamification, badges, and streaks.
- Micro-Learning: Bite-sized content and AI-curated resources.
- Community Growth: Peer learning spaces and discussion hubs.
- Career Exploration: Tools for discovering unconventional paths.
- Mentor Integration: AI-assisted mentor-matching and networking.

Aim:
Encourage consistent learning habits. Help users discover modern, alternative careers. Foster a vibrant, goal-driven learning community.



AI PS 1: MoodTune AI: Voice-to-Vibe Emotional Music Companion

Problem Statement:
People often experience fleeting emotional ups and downs but struggle to find quick, personalized ways to cope, like mood-matching music. Traditional music apps require manual searching, which can be time-consuming during stressful moments. A voice-activated AI app can simplify this by analyzing short voice or text inputs to generate instant playlists, making emotional support accessible and shareable.

Goal:
Create a simple voice-to-vibe AI music companion that detects moods from brief inputs, auto-generates short playlists with explanations, enables easy sharing, and includes fallback options, built as a web-based demo for quick testing.

C**ontent :**
Develop a straightforward, voice-activated AI app that captures users' fleeting moods through quick rants or texts and crafts instant, feel-good playlists to match—turning emotional chaos into sonic therapy on the fly. Key features include:

- Mood Detection: Real-time emotion analysis from 10-second voice clips or typed vents using lightweight AI models.
- Playlist Magic: Auto-generate 5-song playlists from free music APIs, with quirky AI "vibe notes" explaining why each track fits (e.g., "This beat's got your back on that breakup rage").
- Shareable Sparks: One-tap social shares of playlists with custom captions for bragging or group vibes.
- Fallback Fun: Manual mood sliders for when voice tech glitches, plus a "surprise remix" button for random mood boosts.
- Demo Simplicity: Web-based UI for live testing, with audio playback snippets to wow without complexity.

Aim:
Boost everyday emotional check-ins with effortless AI personalization. Make music discovery intuitive and mood-responsive for stressed-out users. Spark viral sharing to build a fun, empathetic audio community in under 5 hours of build time.

AI PS 2: AI Journal Recommender for Researchers

Problem Statement:
Researchers often have trouble finding the best journals to submit their papers. This could be because the journal does not cover the right topics, the chances of acceptance are low, or the researcher doesn't know about all the possible journals out there. An AI system can help by reading a paper and suggesting the best journals for it. This will help researchers save time and find a better match for their work.

Goal:
Make a tool that recommends the top three journals for a research paper by looking at its title and summary (abstract).

C**ontent :**
Develop an intelligent AI tool that analyzes a research paper's title and abstract to recommend the top three most suitable journals, based on topic alignment, acceptance potential, and overall fit—streamlining the submission process for busy academics. Key features include:

- Content Analyzer: Parse the paper’s title and abstract to extract key topics, themes, and keywords, with optional visualization of the most influential terms.
- Journal Matcher: Maintain a curated database of journals with their scopes, topics, and metrics (e.g., impact factor); rank and suggest top matches via semantic similarity scoring.
- Smart Filtering: Allow users to refine recommendations by subject area, impact factor thresholds, or acceptance rates for personalized results.
- Simple Input/Output: Streamlined interface for pasting title and abstract, displaying ranked journals with brief rationale and direct links to submission guidelines.
- Bonus Insights: Provide quick stats like estimated acceptance odds or alternative "underdog" journals for higher chances.

Dataset : https://docs.openalex.org/

Aim:
Empower researchers to discover hidden gem journals and avoid mismatches, saving hours of manual scouting. Boost publication success rates by prioritizing topic-aligned, high-impact venues. Democratize access to journal intel, especially for early-career or interdisciplinary scholars.