ProfAI – Voice-Driven AI Professor with Emotional Intelligence

Track: VC big bets (Education)

1. Motivation / Goal to Achieve

AI learners need two kinds of skills:

1. **Theory** – Understanding concepts, frameworks, and methods.
2. **Tooling** – Knowing how to actually build and apply those concepts with the latest AI tools ("vibe coding," integrations, deployment).

Most education formats teach one or the other. Imagine an **MIT-style AI professor** that can teach either theory, tooling, or both—while sensing when the learner is confused and adapting explanations accordingly.

Goal:
Design and deploy **ProfAI**, an emotionally intelligent AI-powered teacher that focuses deeply on **one chosen learning vertical**. You can target either theory, tooling, or a combination—but choose a **specific delivery format** and make it excellent rather than generic.

2. Core Features (MVP) – Pick Your Specialization

1. **Focus Area** – Choose one:
    - **Theory**: AI fundamentals, algorithms, ML concepts, prompt engineering principles.

    - **Tooling**: Hands-on with AI dev tools, building agents, LLM integrations, data pipelines, “vibe coding” live demos.
    - **Hybrid**: Teach theory and immediately show how to apply it in tools.
2. **Delivery Format** – Pick one and excel at it:
    - Short daily lessons (micro-learning)
    - Deep-dive tutorials (step-by-step, longer-form)
    - Slide-based learning modules
    - Podcast/audio lessons
    - Video tutorials (YouTube-style, screen-share, coding walk-throughs)
3. **Emotion-Aware Teaching** (if chosen) – Detect frustration or confusion from text, tone, or expression and adjust pace, examples, or explanations.

3. Stretch Goals (Optional)

1. **Automated Curriculum Updates** – Pull in latest AI trends, tools, and research so ProfAI stays current.
2. **Community Integration** – Share lessons into Hack-Nation channels, encouraging peer discussion.
3. **Practice + Feedback Loop** – Allow learners to try exercises or code snippets and get instant AI feedback.

4. Hints & Resources

- **Tech Stack**:
    - Theory: GPT-4o for explanations, quizzes, and analogies.
    - Tooling: Code execution environments (Replit API, GitHub Codespaces) + screen capture for video tutorials.
    - Emotion Detection: Hume AI, OpenFace, or text sentiment analysis.

- **Data Sources**: MIT OpenCourseWare, arXiv papers, official AI tool docs (LangChain, Hugging Face, Vercel AI SDK, Cursor).

- **Automation Ideas**:

    - Scrape official tool updates to auto-generate “What’s New” lessons.

    - Use templated scripts to turn tool feature updates into short lesson videos.

5. Evaluation Criteria

- **Specialization Depth:** The chosen learning vertical is delivered with polish and depth.
- **Theory vs Tooling:** Clearly distinguishes between conceptual learning and hands-on skills.
- **Educational Value:** Content is accurate, engaging, and adapted to the learner.
- **Feasibility:** Can realistically be deployed and tested in the hackathon timeframe.

6. Why It Matters

By mastering one focused vertical—whether theory, tooling, or both—ProfAI can become a **trusted go-to AI learning companion** for the Hack-Nation community and any AI engineer across the globe. This approach moves learners beyond passive understanding to active application, empowering them to experiment, build bridges, and ship projects faster.