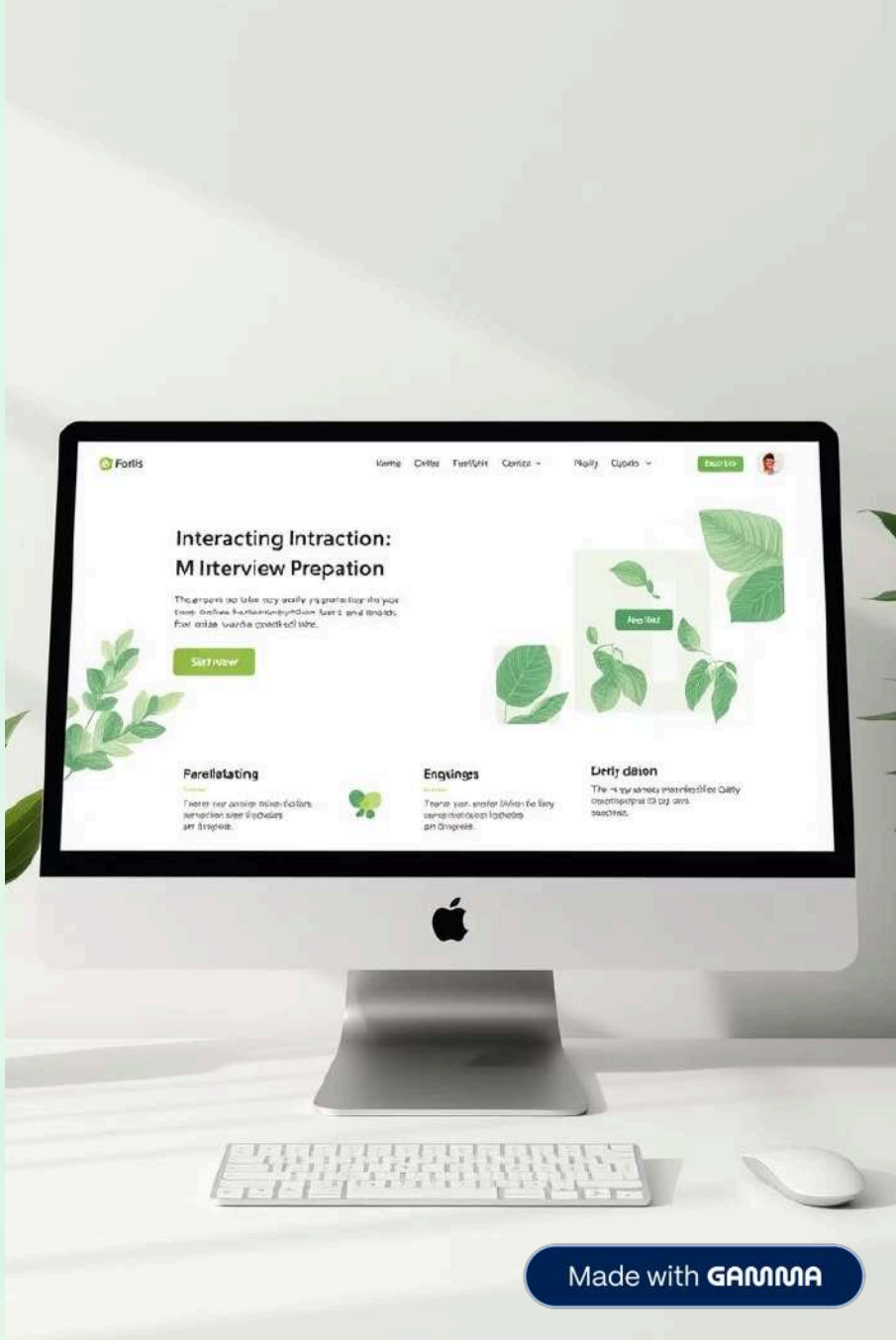
AI Interview Simulator Overview

Prepare for job interviews with AI-driven question generation, evaluation, and detailed feedback.



Purpose & Audience

Purpose

Custom interview question generation and detailed AI feedback

Target Users

- Job seekers
- Students
- Professionals

System Architecture

Frontend

Streamlit web app for interactive user experience

Backend Modules

- Main app controls workflow & session state
- Question generator calls LLM
- Answer evaluator interfaces with LLM
- SQLite handles authentication and history

Data Flow & User Journey

1

1. Configure

Select role, description, difficulty, quantity

2

2. Generate Qs

LLM creates tailored interview questions

3

3. Respond

User inputs answers via web UI

4

4. Evaluate

LLM scores & provides structured feedback

5

5. Analyze

Overall performance review by the LLM

6

6. Save

Results stored in user's interview history

GenAI / LLM Integration

Modular LLM Client

Pluggable interface, currently Mistral AI

Use Cases

- Interview question generation
- Answer evaluation with feedback
- Comprehensive session analysis

Prompt Engineering

Question Generation

Expert interviewer role, clear context, formatted questions

Answer Evaluation

Assess clarity, relevance, completeness, concise JSON feedback

Overall Analysis

Identify strengths, weaknesses, tips; JSON structured output

Testing & Fallback Mechanisms

Fallbacks

- Terminal based interface
- In memory database

Testing

Unit tests with mock LLM responses ensure robustness

User Experience

Interactive UI

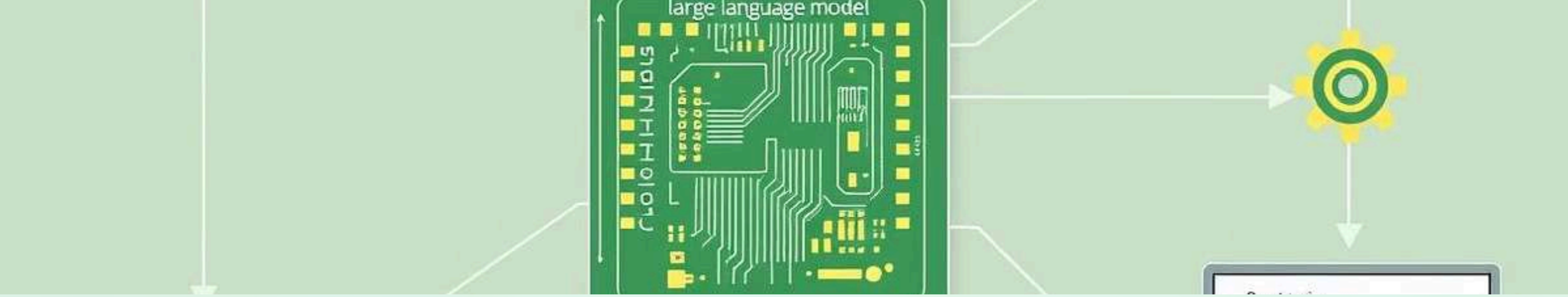
Streamlit interface supporting session state and auth

Clear Feedback

Actionable scores and detailed tips displayed clearly

Persistent History

View past interviews and progress over time



Architecture & Components

Clear component separation enabling modular development and easy LLM integration.

Key Takeaways & Next Steps

1. Custom AI-driven interview coaching
2. Modular Python architecture with Streamlit frontend
3. Robust prompt design and fallback safeguards
4. Future: extend with additional features like voice/ video recognition