

# SpoonFeed AI: Your Intelligent Study Companion

Revolutionizing exam preparation with adaptive learning technology designed specifically for VIT CAT1, CAT2, and FAT assessments.



# The Challenge: Traditional Study Methods Fall Short

## Current Problems

- Students struggle to identify high-weightage topics
- Limited access to relevant previous year questions
- No personalized feedback on errors
- Difficulty tracking progress across subjects
- Generic study plans ignore individual learning pace



VIT students need a smarter way to prepare efficiently and target their weaknesses with precision.

# Our Solution: AI-Powered Adaptive Learning



## Smart Syllabus Analysis

Upload your syllabus and instantly visualize topic weightage through an intelligent Concept Keyword Cloud.



## Three Question Modes

Practice with Relevant, Similar, and Generated questions tailored to your selected concepts.



## Intelligent Error Detection

AI analyzes your answers to pinpoint exactly where you went wrong—formula, concept, or application.



## Personalized Roadmap

Get a custom study plan based on your performance, difficulty level, and exam timeline.

# Innovation & Competitive Edge

## Pre-Trained Subject Models

Domain-specific AI trained on VIT curriculum patterns, syllabus structures, and examination trends for maximum relevance.

## Context-Aware Chat Learning

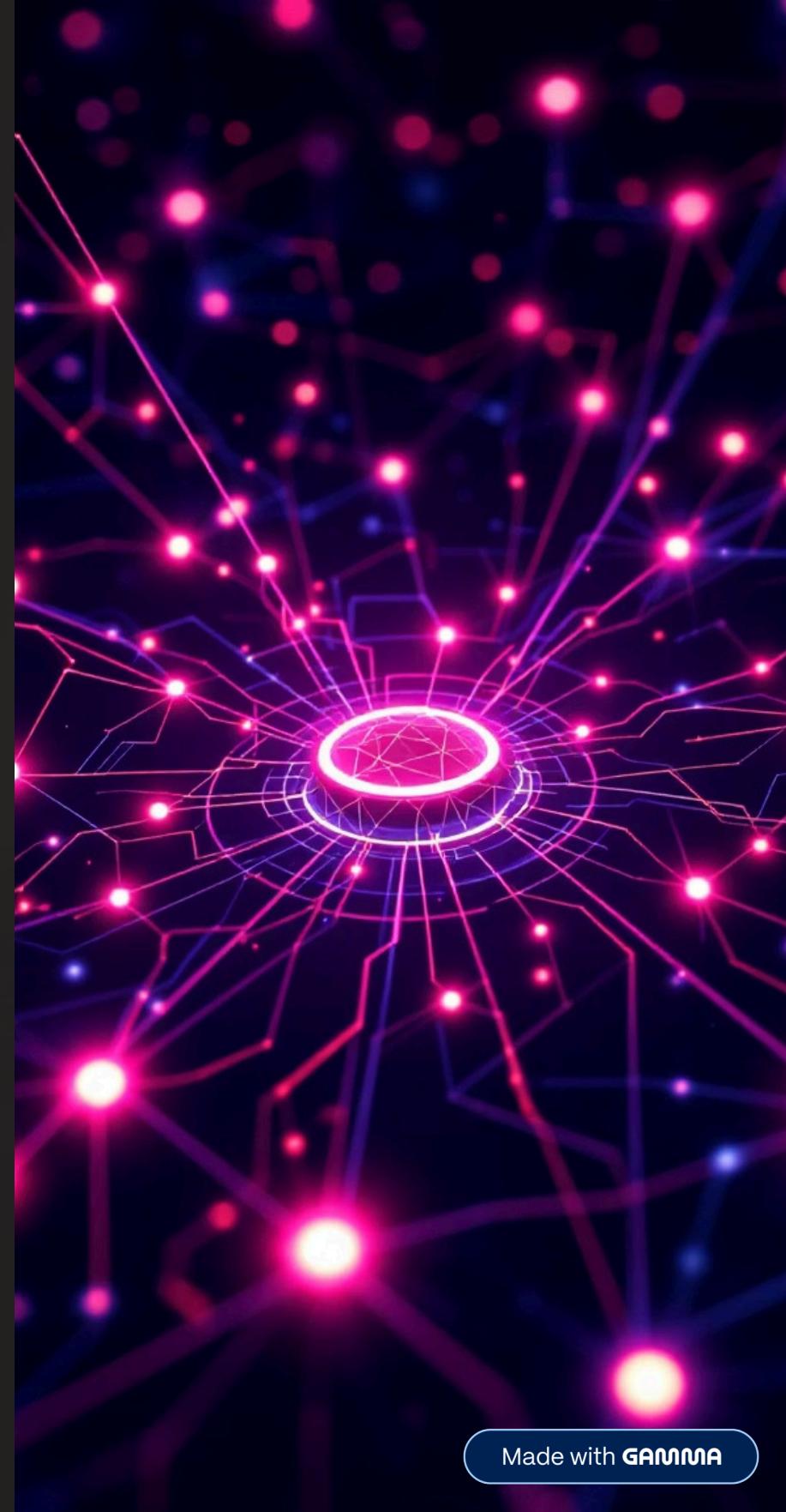
Interactive learning environment that remembers your topic selections and suggests the next three most relevant subconcepts to explore.

## Adaptive Question Generation

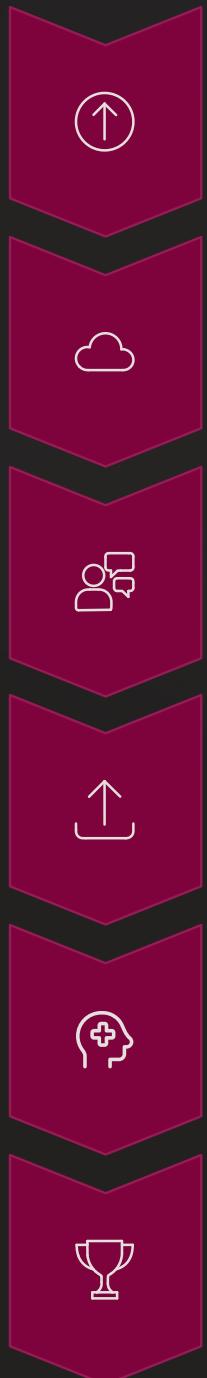
Unlike static question banks, our AI creates fresh practice problems that evolve with your learning curve and target specific gaps.

## Gamified Performance Analytics

Spotify Wrapped-style insights show you how you rank—motivating you with competitive benchmarks and celebrating milestones.



# Learning Workflow: From Upload to Mastery



## Upload Syllabus

Student uploads course syllabus for selected VIT exam and subject

## Visualize Weightage

AI generates Concept Keyword Cloud with size indicating exam importance

## Select & Practice

Choose topic from cloud, enter context chat, practice via three question modes

## Submit Answers

Upload handwritten or typed solutions for AI analysis

## Error Detection

AI pinpoints mistakes and loops back to targeted practice questions

## Track Progress

View analytics, leaderboard rank, and personalized study roadmap

# Technical Architecture

## Technology Stack

### Frontend

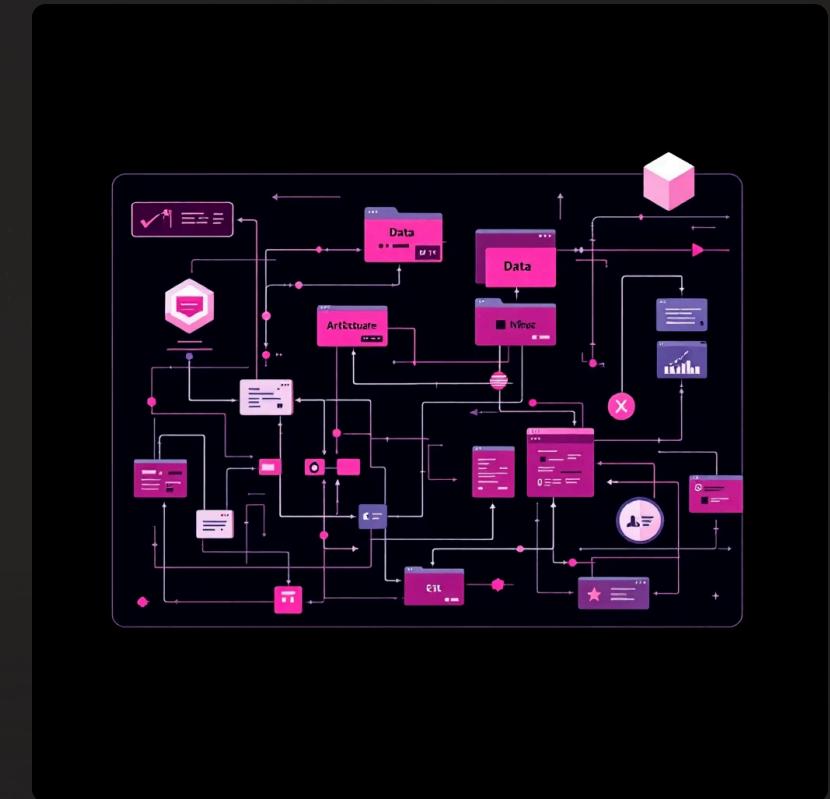
- React.js for responsive UI
- D3.js for Concept Keyword Cloud visualization
- Tailwind CSS for modern styling

### Backend

- Python Flask/FastAPI for REST APIs
- TensorFlow/PyTorch for AI models
- MongoDB for flexible document storage
- Redis for caching and session management

### AI & ML

- Fine-tuned GPT models for question generation
- NLP for keyword extraction and error analysis
- Computer vision for handwriting recognition



# Three Question Modes Explained

## Relevant Questions

Focuses on high-frequency PYQs with proven track record. These are the sure-shot questions most likely to appear in your exam.

## Similar Questions

Same underlying concept, different variables. Practice structural problem-solving by encountering reframed variations.

## Generated Questions

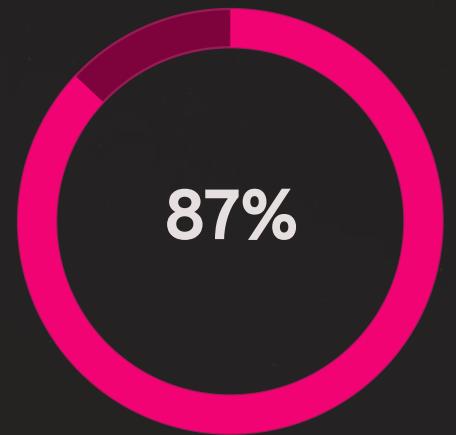
AI creates entirely new problems on specific concepts you're struggling with, accelerating deep comprehension.

# Performance Analytics Dashboard



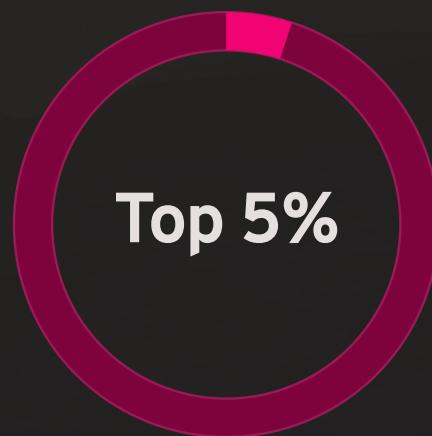
**Avg. Study Time**

Tracked per session across all subjects



**Accuracy Rate**

Your overall correctness across practiced topics



**Leaderboard Rank**

Benchmarked against VIT student community



**Difficulty Rating**

Adaptive challenge level based on performance

Get your Spotify Wrapped-style year-end summary celebrating your academic achievements and growth milestones.

# Additional Features That Set Us Apart

## Intelligent Branching

After each topic, the system suggests the next three most relevant subconcepts, creating a natural learning flow that adapts to your choices.

## Handwriting Recognition

Upload photos of handwritten solutions and our OCR technology converts them for instant AI analysis and feedback.

## Competitive Leaderboards

Compare your time, accuracy, and topic mastery with peers, fostering healthy competition and motivation.

## Exam-Specific Training

Separate pre-trained models for CAT1, CAT2, and FAT ensure preparation aligns with each assessment's unique structure.



# Meet the Team

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