

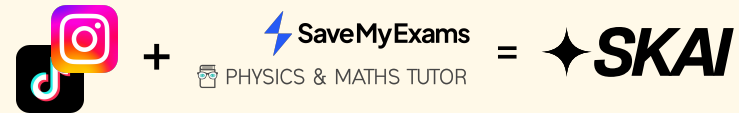


Designing, developing and iteratively publicly testing an optimised algorithm-powered education platform.

useskai.com

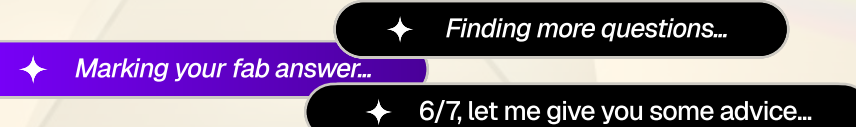
Overview

SkAI (/skaɪ/) was developed with one goal in mind: **automating revision**. In the modern world, revision often doesn't achieve full efficiency due to distractions, lack of motivation and improper techniques.



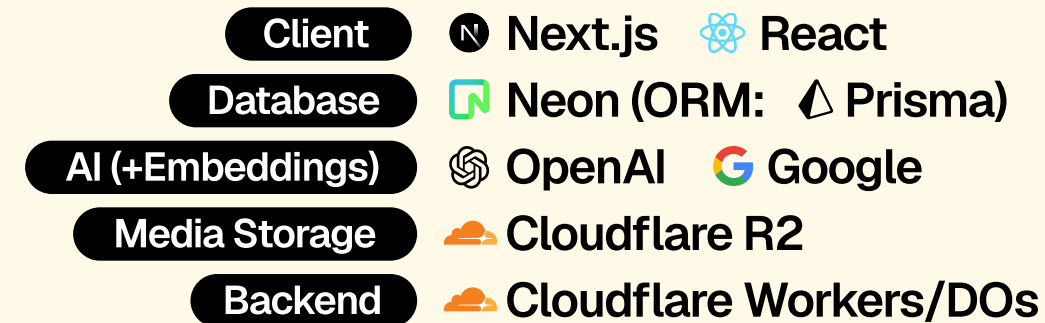
Picture the typical student cramming before a test: likely lack of order and stress that would absolutely **crash** exam performance.

An app which would detect mistakes and knowledge gaps, while also doing it's best to keep the user on the platform would be like a secret superpower in academics.

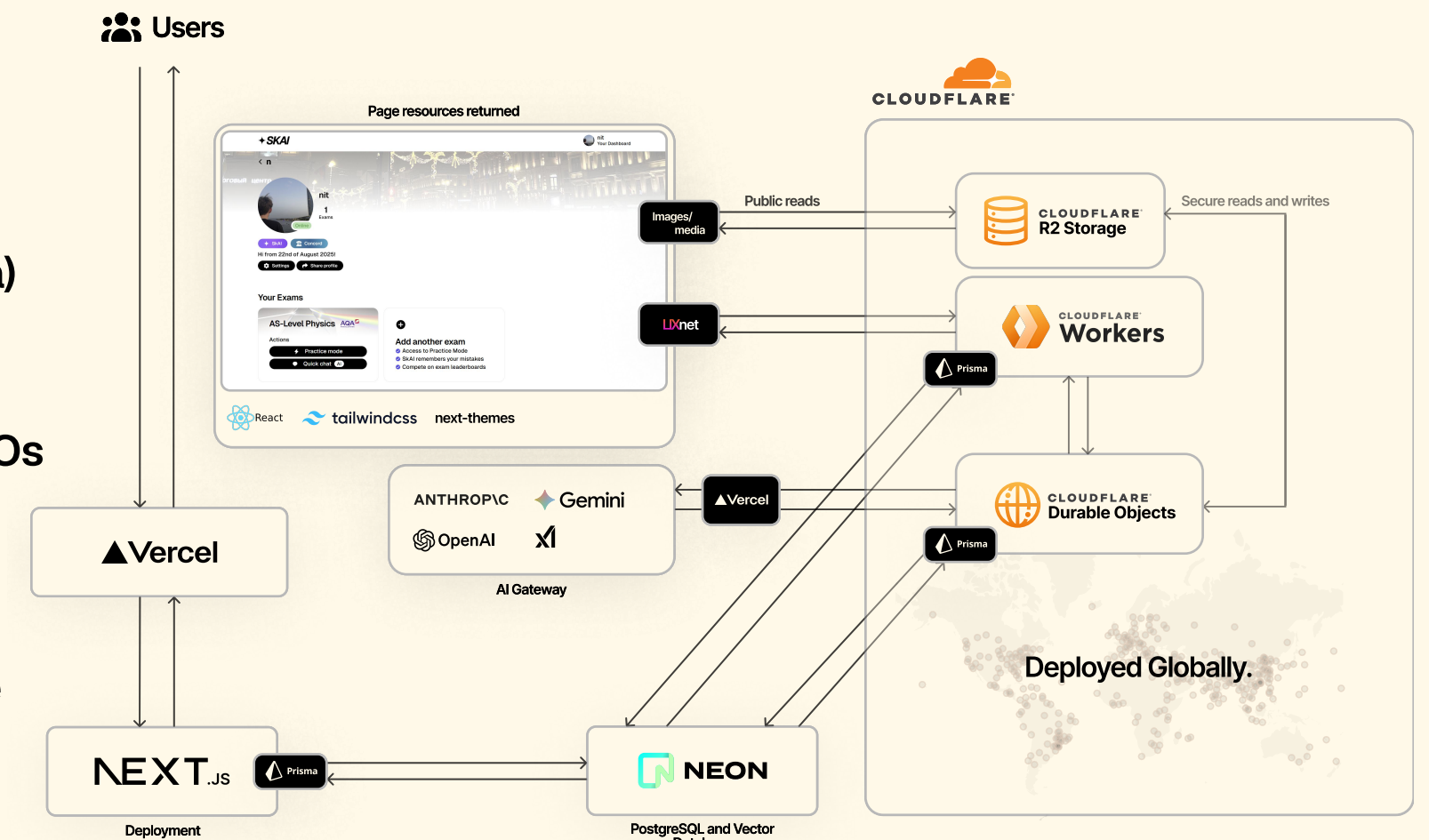


Architecture

An efficient architecture is vital for the app. The project itself is built in TypeScript, and utilises tools like Next.js with React.



The choice of managed deployments eliminates management overhead, enabling **instant scalability**. Deploying on Cloudflare allows code to be run on endpoints across the world, minimising latency across regions of access. The AI Gateway also acts as a central digital wallet for model usage.



1

Rapidly collects data for the question batch. Knowledge gaps are imported from app memory. Topics covered in the previous 24 hour period and statistics are also retrieved from the database.



2

Targets knowledge gaps based on past mistakes. The algorithm collects 2 questions that focus directly on knowledge gaps via a high-dimensional vector search (HNSW, etc.).



3

Inserts something new to test the user. Unfamiliar questions are inserted to test for more knowledge gaps as well as to continuously practice active recall.



4

Includes simpler questions for higher retention. Easier questions are inserted to increase session time by adding a degree of gamification and a variable reward system like social media.



SHIP

Algorithm

Alpha Test planned for Winter 2025/2026

Past papers require over 1.5 hours per question paper and 50 minutes per marking scheme to import into SkAI. The alpha version will primarily focus on AQA AS Level Physics with all other subjects disabled, targeting 6.1s but available to all Concord College students.

Launchtime

More on SkAI

Further project information, including updates and references can be found on the SkAI EPQ Hub. You can scan the QR code or visit <https://epq.useskai.com/hub>

