
LAYER 1: INTERFACE & CONTROL



Next.js 15

App Router UI. React 19 Server Components for high-performance rendering.



BullMQ / Redis

Reliable job queue for managing complex video generation pipelines.



PostgreSQL

Core relational DB + pgvector. Stores World State & Character JSON.



LAYER 2: THE MODEL ZOO (CLOUD APIS)

LOGIC / WRITING



Claude 3.5 Sonnet

Provider: Anthropic

IMAGE GEN



Flux.1 [Dev]

Provider: Replicate

VIDEO GEN



Luma Dream Machine

Provider: Luma Labs

VOICE / SYNC



ElevenLabs + SyncLabs

Provider: 11Labs/Sync

LAYER 3: INFRASTRUCTURE & DOCS



Quarto Executable Scripting

Converts Markdown into Hybrid Documents with embedded metadata.

Input: story.md
Process: Agent injects [object JSON] Metadata
Output 1: script.pdf (Human Review)
Output 2: script.json (Video Driver)



Cloud-Local Asset Mirror

GitHub

Version Control

Local CLI

Orchestrator

AWS S3 / R2

Heavy Assets

npm run asset:sync

Frontend (Next.js)

Database (Supabase)

Video (Luma)

Writing (Claude)