

ROBERT MORGAN

FULL-STACK SOFTWARE ENGINEER

PROJECTS

TL;DR History [Live Site](#) | [GitHub](#)

A GraphQL-driven history platform with infinite-scrolling social timelines.

- Architected a type-safe GraphQL API (Node, TypeScript, Prisma), eliminating client-server mismatches and improving reliability.
- Built a data-intensive React application with dynamic filtering, virtualised infinite scrolling, and context-driven timeline updates.
- Migrated to a hybrid rendering model with 60+ pre-rendered pages and dynamic meta tags, improving SEO while preserving interactivity.
- Implemented refresh-token auth, RBAC, moderation workflows, and AI-assisted content generation with schema-constrained prompting.
- Developed tooling to validate ~1500 records, enforce copyright compliance, and optimise CDN image delivery via Cloudflare R2.

Aquaclear [Live Site](#) | [GitHub](#)

A containerised web platform with an AI-powered client assistant.

- Built an AI chat system with persistent memory and contextual retrieval using embeddings and custom cosine similarity search.
- Optimised perceived response latency from ~7s to under 2s using in-memory retrieval, async persistence, and streamed responses.
- Architected a type-safe RAG backend with Node, Express, TypeScript, and Zod validation, with integrated tests covering critical application flows.
- Containerised and deployed the platform via Docker and Render CI/CD, enabling reproducible environments and streamlined production delivery.

Slumbernaut [Live Site](#) | [GitHub](#)

A dynamic artist website that uses Spotify, YouTube, and Google API.

- Built and deployed a Next.js artist platform integrating multiple APIs with SSR, caching, and automated content updates.

WORK EXPERIENCE

Gracenote

Data Operations Engineer | Aug 2016-Oct 2024 | Amsterdam, NL

- Owned end-to-end data pipeline operations for high-priority broadcast metadata (BBC, ITV), ensuring accuracy and timely delivery in production-critical workflows.
- Operated independently within a distributed agile team, managing daily ingestion and validation workflows in a remote-first environment.
- Managed FTP ingestion pipelines, processing structured and unstructured data for downstream systems, including parsing and error resolution.
- Designed and executed QA and validation processes to ensure data consistency, integrity, and compliance across large-scale datasets.

📍 UK

✉ robmorgandev@gmail.com

🌐 [/robert-morgan.dev](https://robert-morgan.dev)

🐙 [/RobertLeeMorgan](https://RobertLeeMorgan)

🌐 [/robert-morgan-dev](https://robert-morgan-dev)

SKILLS

Frontend

React, Next.js, Tanstack Query, Tailwind, Framer

Backend

Node, TypeScript, GraphQL, Express, MySQL, MongoDB

Tools

Docker, CI/CD, Git, Bash, Render, Vercel, Vitest

EDUCATION

University of South Wales

Aug 2012-Dec 2014

Bachelor's degree: Animation

Cardiff Met University

Aug 2011-May 2012

Diploma: Art and Design

Coleg Glan Hafren

Aug 2009-Jul 2011

A Level: Information Technology

CERTIFICATES

React: Complete Guide

Node JS: Complete Guide

Understanding TypeScript

MySQL Bootcamp

Data Structures & Algorithms