MegaPi

MegaPi is a FastAPI-based backend for the music-sim project. Engineered to revolutionize the way users explore music, MegaPi provides a modern UI to browse a music library by similarity of acoustic characteristics instead of metadata. MegaPi offers a RESTful API for the frontend to interact with. It also serves an ML model (an Essentia CNN) to predict music genres. It connects to a PostgreSQL database to store user data and music metadata. It uses MinIO to store music files and Milvus to store music embeddings. It also utilizes Cyanite API to compare music recommendation services. Additionally, it uses another API to fetch music lyrics when available. The project is containerized using Docker and can be deployed using docker compose.

Backend Code

The code for the backend is in the private GitHub repo named megapi and can be found here (if you have access): https://github.com/Hatchi-Kin/megapi

API url

The api for the project is self hosted. User need to be authenticated to use the service. https://api.music-sim.fr and the swagger /docs for the api: https://api.music-sim.fr/docs

Frontend Code

The code for the frontend for this project is in another GitHub repo. It's called react-music-sim, uses React and TypeScript, and can be found here: https://github.com/Hatchi-Kin/react-music-sim

Web Application

The web app is self-hosted and can be accessed at https://music-sim.fr/

Monitoring Stack

The code for the monitoring stack for the project includes MLFlow, Prometheus/Grafana, and Locust. The code for the monitoring-stack can be found here: https://github.com/Hatchi-Kin/monitoring-stack

Monitoring dashboard and documentation

Authenticated admin can acces the grafana dashord to monitor the client and backend of music-sim at https://monitor.music-sim.fr/. The documentation for the project is generated using MkDocs and can be found here: https://hatchi-kin.github.io/megapi/