Loudly

Technical Test for Music AI Working Students

Here at Loudly we often analyze audio material, employing a variety of music information retrieval techniques. Attached, you will find an audio file that contains a short piece of music. An important aspect of music is tempo, usually expressed in how many beats occur per minute. To get an idea of your abilities we would like you to solve the following tasks:

- Research a suitable Python package to perform beat tracking.
- Use this package to find the position in time of each beat in the given piece of audio.
- Visualize the audio waveform and mark the beat positions on the time axis.
- Estimate the overall tempo of the material in beats per minute (bpm).
- Describe your thought process in a few sentences.
- Bonus: Describe what other musical aspects come to your mind that would be interesting to analyze?

Please provide the results of this task in a GitHub repository and invite us to take a look: https://github.com/mschaller-loudly

We recognise that the task involves music specific domain knowledge that you may or may not have. That's fine! Feel free to use your confusion as a vehicle to show us your problem solving skills. ;)

Good Luck!

The Loudly Audio R&D Team