



SIMBALS
Château de Thouars
27 allée des petits rois
33400 TALENCE

Research Internship Query-by-Example

Contact: internships@simbals.com

Duration: 5 to 6 months

Company

Simbals is an innovative company founded in 2012 in Bordeaux, France. Our solutions come from many years of research at the University of Bordeaux in signal processing and data mining, illustrated by several international publications or patents. Our mission is to provide the most useful solutions from technology to help the industry providing the best user experience among the huge amount of music data available: cleaning catalogs, automatic tagging, AI and machine learning processes, recommendation and playlisting systems are a part of the possible applications.

Research Team

You will integrate the Research team, which is aiming at developing new innovative solutions for the music and audio industry, from the initial planning to implementation. For example, research team investigates areas such as audio and music content identification, music recommendation and personalized radios, smart music data, artificial intelligence for music.

Description

Our mission is to provide the most useful solutions from technology to help the industry providing the best user experience among the huge amount of music data available. Amongst these solutions, we propose query-by-example technologies consisting of automatically retrieving similar audio tracks from an audio example. Tracks retrieved have to be perceptually and musically similar to the audio example (same musical genre, same instruments, etc.). Such technologies have to be constantly evaluated and improved in order to be able to deal with huge catalog.

Work during Internship would consist of studying bibliography concerning audio similarity for proposing and implementing different solutions or improving existing algorithms. These solutions would be tested with huge database in order to evaluate their accuracy and their usability of existing musical catalogs.

The intern will be encouraged to propose solutions and work in autonomy.

Profile

Master student with background in applied mathematics or/and computer sciences

Skills

- Strong knowledge of machine learning and signal processing
- Good programming skills (Python, C++ is a plus)
- Strong interest in music
- High motivation and autonomy
- Working knowledge of French language
- Working knowledge of English language