apollon

Release 0.2.0

unknown

Jul 03, 2023

CONTENTS

apollon is a feature extraction and modeling framework for music data analysis. It handles low-level audio feature extraction, their aggreagation using Hidden Markov models, and comparison by means of the self-organizing map.

CHAPTER

ONE

OVERVIEW

1.1 Download

You can either download the source code from the apollon GitHub repository or clone it directly with

```
git clone https://github.com/ifsm/apollon.git
```

1.2 Installation

apollon can be installed on GNU/Linux, macOS, and Windows. Installation process is similar on each of these plaforms. Note, however, that apollon contains CPython extension modules, which have to be compiled locally for GNU/Linux and Windows users. If you work on those platforms, please make shure that there is a C compiler set up on your machine; otherwise the installation will fail. In the case of macOS, a precompiled wheel is provided for the latest version only.

1.2.1 Install using pip

The Python package manager can automatically download and install apollon from Pypi. Simply run the following command from your terminal:

```
python3 -m pip install apollon
```

1.2.2 Build from source

Note: The build process requires poetry.

You can also install and compile apollon directly from its sources in three steps:

- Download the apollon source code
- Open a terminal and navigate to the apollon root directory
- Install and compile with the following command

```
poetry install
```

1.3 Audio Feature Extraction

1.4 Onset detection

Different onset detection algorithms.

1.5 Audio Segmentation

Audio segmentation is crucial for all applications that seek to extract features from multiple sections of the same signal. Apollon provides several segmentation algorithms that cover the most common use cases.

You can index Segments and LazySegments go access single data segments of the signal. Each segments is return as an instance of `apollon.models.Segment`.