

ADAMS

Advanced **D**ata mining **A**nd **M**achine learning **S**ystem

Module: adams-ufdl-audio



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Chapter 1

UFDL

UFDL, or user-friendly deep-learning, enables users with little or no deep-learning expertise to maintain datasets for deep-learning tasks such as audio processing and object detection.

This ADAMS module focuses on audio processing tasks.

Chapter 2

Flow

In addition to the core UFDL components, you also have the following ones available. These are used in the management flow *adams-ufdl-speech-manage_speech_datasets.flow*, which can be used for administrating speech datasets.

The following conversions are available:

- *UFDLSpeechDatasetFilesToSpreadSheet* – turns the files and transcripts of a speed dataset into a spreadsheet
- *UFDLSpeechDatasetToListItem* – converts a UFDL SpeechDataset to a list item string.
- *UFDLSpeechDatasetToSpreadSheet* – turns a speech dataset into a spreadsheet

2.1 Actions

The following sink actions can be used:

- *DownloadSpeechDataset* – downloads a speech dataset

The following source actions can be used:

- *CreateSpeechDataset* – creates a speech dataset
- *ListSpeechDatasets* – lists speech datasets

The following transformer actions can be used:

- *AddSpeechFile* – adds files to a speech dataset
- *ClearSpeechDataset* – removes meta-data and annotations from a speech dataset (via PK or name).
- *CopySpeechDataset* – copies the speech dataset (new version or name)
- *DeleteSpeechDataset* – removes the specified speech dataset
- *DeleteSpeechFile* – removes the specified files from a speech dataset
- *GetSpeechFile* – retrieves a file from a speech dataset via its name
- *GetSpeechMetadata* – retrieves the metadata for a speech dataset
- *GetSpeechMetadataForFile* – retrieves the metadata for an file of a speech dataset via its name
- *GetSpeechTranscripts* – retrieves the map of file/transcripts for a dataset

- *GetSpeechTranscriptForFile* – retrieves the transcript of a file from a dataset
- *ListSpeechFiles* – lists all the files in a speech dataset
- *LoadSpeechDataset* – loads a speech dataset (via PK)
- *MergeSpeechDatasets* – for merging two speech datasets.
- *ReinstateSpeechDataset* – reinstates (“undeletes”) a speech dataset.
- *SetSpeechMetadataForFile* – sets the metadata of an file in an object detection dataset
- *SetSpeechTranscriptForFile* – sets the metadata of an file in an object detection dataset
- *UpdateSpeechDataset* – updates the properties of an image classification dataset

2.2 EnterManyValues extensions

The following extensions of value definitions used by the *EnterManyValues* source make it easier for users to select PKs:

- *UFDLSpeechDatasetChooser* – for selecting one or more speech datasets
- *UFDLSpeechDatasetList* – for selecting a speech dataset

Bibliography

- [1] *ADAMS* – Advanced Data mining and Machine learning System
<https://adams.cms.waikato.ac.nz/>