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Functions

Module **functions_train**

▶ EXPAND SOURCE CODE

Functions

```
def R_squared(y, y_pred)
```

Calculates the coefficient of determination (R-squared).

Args:

`y` : The true values.

`y_pred` : The predicted values.

Returns:

The R-squared value.

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```
def create_model()
```

Creates the model using keras library. The model contatin 4 parallel CNN and 4 serial LSTM.

Returns:

The created model.

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```
def extract_input_target()
```

Linking the audio path with the associated valence-arousal

Returns:

The path of the audio and its corresponding labels

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```
def get_dataset(path, labels)
```

Creates a dataset by zipping audio file paths and their corresponding labels.

Args:

`path` : List of file paths of audio files.

`labels` : List of labels associated with the audio files.

Returns:

A TensorFlow dataset containing zipped file paths and labels.

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```
def load_audio(file_path, label)
```

Reads audio files and their corresponding labels.

Args:

`file_path` : File path of the audio file.

`labels` : Label associated with the audio file.

Returns:

Audio data as a TensorFlow Tensor and the corresponding labels for the audio file.

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```
def prepare_for_training(ds, shuffle_buffer_size=1024, batch_size=64)
```

Prepares a dataset for training by applying transformations.

Args:

`ds` : The input dataset.

`shuffle_buffer_size` : The buffer size for shuffling the dataset.

`batch_size` : The batch size for creating batches of data.

Returns:

The prepared dataset.

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