Noise Classification Using Decision Comitee

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Abstract. *This is the paper model for SBC conferences. I made some instructions so we can use it to write our own paper. It contains a suggestion of placement of the sections.*
Ok here we make the abstract. Needless to say it comes last. Should have max 10 lines.

1. Introduction

I took some liberties in the sketch Nascimento gave us in the Telegram group, combining with this paper [Nakagawa et al. 2012] to come up with this model you're seeing. Initially, this Section describes the problem we are attempting to solve. We have to describe the problem many audio signal processing tasks face when performed in noisy conditions. References are much appreciated.

After that, we should write some kind of small version of the next sections. Do it ONLY after writing all the other parts. Each paragraph in the other sections become some lines here.

2. Audio Classification

In this section we should describe the audio classification task and how it applies to our specific problem, the noise classification.

Additionally, we have to describe each technique we use, in subsections.

2.1. Neural Network

One or two paragraphs should do. Don't forget the proper references (like this one [Lei et al. 2014]).

2.2. K-means

This is a method used in summarization. Didn't find references.

2.3. Gaussian Mixture Models

2.4. Logistic Regression

2.5. K-Nearest Neighbors

This paper should give me a start [Karam and Campbell 2013]. Hope i'm not wrong.

2.6. Support Vector Machines

Here we have a paper in audio classification using SVM [Cumani and Laface 2012].

3. Experiments

Here we will describe the experiments. It should contain an introductory paragraph containing the purpose of the experiments.

3.1. Experimental Setup

This paragraph should have all the requirements to perform the experiment, including hardware, software and general conditions. Sometimes people put the database here, but i think it will provide greater value if we put it in it's own subsection.

3.2. Database Description

Here we describe the NOISEX database. Since it's an important part of this work, we should take our time to properly describe it.

3.3. Evaluation Metrics

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Here we can describe how we evaluate the performance of each experiment.

3.4. Results

You may be wondering why have only the 'results' and not the 'experiments' subsection. This is because we already told the reader everything he has to know in the previous sections. Section 2 describes the different methods and Sections 3.1 and 3.2 describe the details of the experiments.

4. Conclusions

Here we conclude the paper. I suck at this, so pls someone do it for me. The one thing I know is that we have to summarize our findings and link it to our problem stated in the introduction, telling the reader whether we were successful or not in the task we proposed in the beginning.

5. References

Bibliographic references must be unambiguous and uniform. We recommend giving the author names references in brackets, e.g. [**?**], [**?**], and [**?**].

The references must be listed using 12 point font size, with 6 points of space before each reference. The first line of each reference should not be indented, while the subsequent should be indented by 0.5 cm.

References

Cumani, S. and Laface, P. (2012). Analysis of large-scale svm training algorithms for language and speaker recognition. *IEEE Transactions on Audio, Speech, and Language Processing*, 20(5):1585–1596.

Karam, Z. N. and Campbell, W. M. (2013). Graph embedding for speaker recognition. In *Graph Embedding for Pattern Analysis*, pages 229–260. Springer.

Lei, Y., Scheffer, N., Ferrer, L., and McLaren, M. (2014). A novel scheme for speaker recognition using a phonetically-aware deep neural network. In *Acoustics, Speech and Signal Processing (ICASSP), 2014 IEEE International Conference on*, pages 1695–1699. IEEE.

Nakagawa, S., Wang, L., and Ohtsuka, S. (2012). Speaker identification and verification by combining mfcc and phase information. *IEEE transactions on audio, speech, and language processing*, 20(4):1085–1095.