
- Bachelor Project and Thesis / Master Thesis - Speaker Clustering using i-Vectors

CASED

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Motivation & Goal

Identity vectors (i-Vectors) have become state-of-the-art acoustic features in speaker recognition describing the characteristic speaker offset from a universal acoustic cluster.

In order to robustly train pattern recognition classifiers, it is of uttermost importance to organize the development data well. While supervised clustering uses meta information, unsupervised clustering appears more challenging. Further, investigations need to take domain shifts into account, which occur due to changes in e.g., recording devices, recording conditions or the speech signal.



Tasks

- Implement supervised/unsupervised i-Vector cluster methods
- Examine clustering impacts on speaker classification
- Analyze domain and data shift effects

Requirements

- Interest in pattern recognition, machine learning and biometrics
- Good Programming skills (preferably C++, Julia, MATLAB or Python) but any other language is fine too
- Basics in Bayesian and probabilistic theory
- Motivation and creativity

Contact

If you are interested, please contact Andreas Nautsch

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