

Spoken Arabic Dialect Identification using Textual features

Mohamed Eldesouki, Fahim, Hassan Sajjad, *and* Kareem Darwish

Qatar Computing Research Institute

Hamad bin Khalifa University

Doha, Qatar

{mohamohamed, faimaduddin, hsajjad, kdarwish}@qf.org.qa

Abstract

This document contains the instructions for preparing a camera-ready manuscript for the proceedings of VarDial 2016. The document itself conforms to its own specifications, and is therefore an example of what your manuscript should look like. **Please write a brief abstract describing your system and the results you obtained. You can also briefly mention any insights or interesting highlights from your results.**

1 Introduction

(Ali et al., 2016) This paper represents an example of how a system description paper may be structured. A bib file with relevant references is also included.

We would like to ensure that future readers of your paper can find the relevant task description, data and results. So, we ask that you cite the shared task report paper (Malmasi et al., 2016) in your introduction.

You could begin with a brief description of the task and an overview of your approach.

2 Related Work

In this section you can briefly describe other work in this area.

For DSL, useful details can be found in the analysis by Goutte et al. (2016).

For Arabic Dialect Identification, details from Malmasi et al. (2015) can be helpful.

You can also discuss how your system relates to other work in this area. For example, you can compare the approach to the winners of the previous task: (Malmasi and Dras, 2015) and (Goutte and Leger, 2015).

3 Methodology and Data

The description of your system and your different runs can be included here.

If you used any extra data or resources for the open track, you can describe them here.

4 Results

You can describe your results in this section.

We have included some automatically generated tables with your results. You may wish to merge them into a single large table, or present your results in some other way.

You can compare your results against the baselines for each test set:

Run	Accuracy	F1 (micro)	F1 (macro)	F1 (weighted)
run1	0.5136	0.5136	0.5091	0.5112
run2	0.5117	0.5117	0.5023	0.5065

Table 1: Results for test set C (closed training).

Run	Accuracy	F1 (micro)	F1 (macro)	F1 (weighted)
run1	0.3792	0.3792	0.3462	0.352
run2	0.3747	0.3747	0.3371	0.3413

Table 2: Results for test set C (open training).

- A – Random baseline: 0.083
- B1/B2 – Random baseline: 0.20
- C – Majority class baseline: 0.2279

You can insert these baselines as the first row in your result tables, for comparison purposes.

Test set A had 12 classes while test sets B1 and B2 had 5 classes. The samples were evenly distributed across the classes and so a random baseline is used. The samples in test set C were slightly unbalanced, so a majority class baseline of 22.79% is used.

The confusion matrices you received can also be included here, either as an image (include the PDF using the `\includegraphics` command) or as a table.

Test Set	Track	Run	Accuracy	F1 (micro)	F1 (macro)	F1 (weighted)
C	closed	run1	0.5136	0.5136	0.5091	0.5112
C	closed	run2	0.5117	0.5117	0.5023	0.5065
C	open	run1	0.3792	0.3792	0.3462	0.352
C	open	run2	0.3747	0.3747	0.3371	0.3413

Table 3: Results for all runs. You may prefer to use this large table instead of individual tables for each category.

5 Discussion

You can interpret and discuss your results here. You can also include ideas for future work.

References

- Ahmed Ali, Najim Dehak, Patrick Cardinal, Sameer Khurana, Sree Harsha Yella, James Glass, Peter Bell, and Steve Renals. 2016. Automatic dialect detection in arabic broadcast speech. In *Interspeech 2016*, pages 2934–2938.
- Cyril Goutte and Serge Leger. 2015. Experiments in discriminating similar languages. In *Proceedings of the Joint Workshop on Language Technology for Closely Related Languages, Varieties and Dialects (LT4VarDial)*, pages 78–84, Hissar, Bulgaria.
- Cyril Goutte, Serge Léger, Shervin Malmasi, and Marcos Zampieri. 2016. Discriminating Similar Languages: Evaluations and Explorations.
- Shervin Malmasi and Mark Dras. 2015. Language identification using classifier ensembles. In *Proceedings of the Joint Workshop on Language Technology for Closely Related Languages, Varieties and Dialects (LT4VarDial)*, pages 35–43, Hissar, Bulgaria.
- Shervin Malmasi, Eshrag Refaee, and Mark Dras. 2015. Arabic Dialect Identification using a Parallel Multidialectal Corpus. In *Proceedings of the 14th Conference of the Pacific Association for Computational Linguistics (PACLING 2015)*, pages 209–217, Bali, Indonesia, May.
- Shervin Malmasi, Marcos Zampieri, Nikola Ljubešić, Preslav Nakov, Ahmed Ali, and Jörg Tiedemann. 2016. Discriminating between similar languages and arabic dialect identification: A report on the third dsl shared task. In *Proceedings of the 3rd Workshop on Language Technology for Closely Related Languages, Varieties and Dialects (VarDial)*, Osaka, Japan.