Swiss German Speech to Standard German Text

SwissText.org Shared Task 3

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Abstract

This paper analyzes and implemented models for the shared task 3 from the SwissText conference on translating swiss german speech to standard german text and presents the findings. We implemented multiple *DeepSpeech* models using the data provided by SwissText.org as well as additional data. An additional experiment with a sequence to sequence translation model was trained in order to improve our score. We achieved a BLEU score of up to 0.17 on the test set of SwissText.

1 Introduction

The following instructions are directed to authors of papers submitted to ACL-IJCNLP 2021 or accepted for publication in its proceedings.

2 Materials and Methods

3 Experiments & Results

3.1 Datasets

We compared models on both the dataset provided by the SwissText conference (STC) as well as the ArchiMob corpus. The SwissText conference dataset (STCD) contains 38 GB of labeled and 65 GB of unlabeled spoken swiss german audio data and an additional validation set containing 1.5 GB of data (Ando and Zhang, 2005a). The ArchiMob corpus (Release 2) contains X GB of spoken swiss german data (Samardžić et al., 2016).

3.2 Results

Model#	Data	Train BLEU	Test BLEU
1	SwissText	0.23	0.0004
2	ArchiMob	0.27	**0.17**
3	ArchiMob	0.24	0.07

Table 1: Font guide.

4 Discussion

5 Conclusion

References

Rie Kubota Ando and Tong Zhang. 2005. A framework for learning predictive structures from multiple tasks and unlabeled data. *Journal of Machine Learning Research*, 6:1817–1853.

Tanja Samardžić, Yves Scherrer, and Elvira Glaser. 2016. ArchiMob - a corpus of spoken Swiss German. In *Proceedings of the Tenth International Conference on Language Resources and Evaluation (LREC'16)*, pages 4061–4066, Portorož, Slovenia. European Language Resources Association (ELRA).