

Tackling Low-Resourced Sign Language Translation: UPC at WMT-SLT 22

EMNLP
2022



Laia Tarrés *
PhD Student
@UPC & BSC



Gerard I. Gállego *
PhD student
@UPC

* Equal contribution



Xavier Giró
Researcher
@Amazon



Jordi Torres
Researcher
@BSC



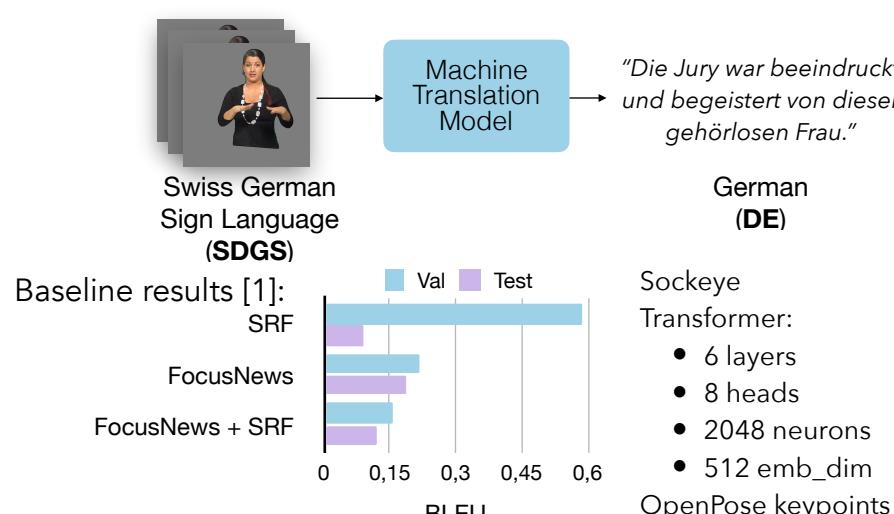
UNIVERSITAT POLITÈCNICA DE CATALUNYA
BARCELONATECH
Escola Tècnica Superior d'Enginyeria
de Telecomunicació de Barcelona



Barcelona
Supercomputing
Center
Centro Nacional de Supercomputación

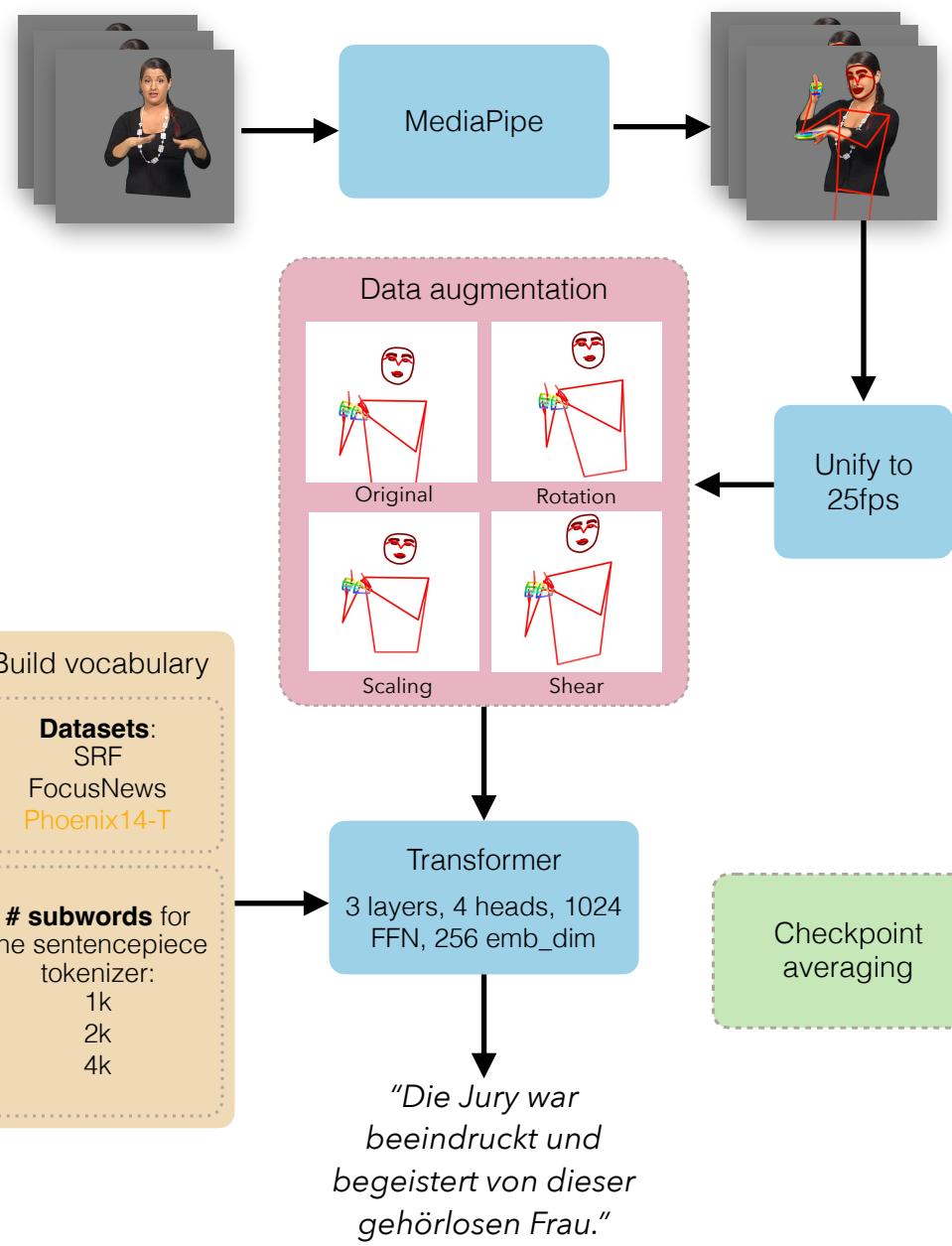
TASK

The submission tackles **Sign Language Translation (SLT)**:



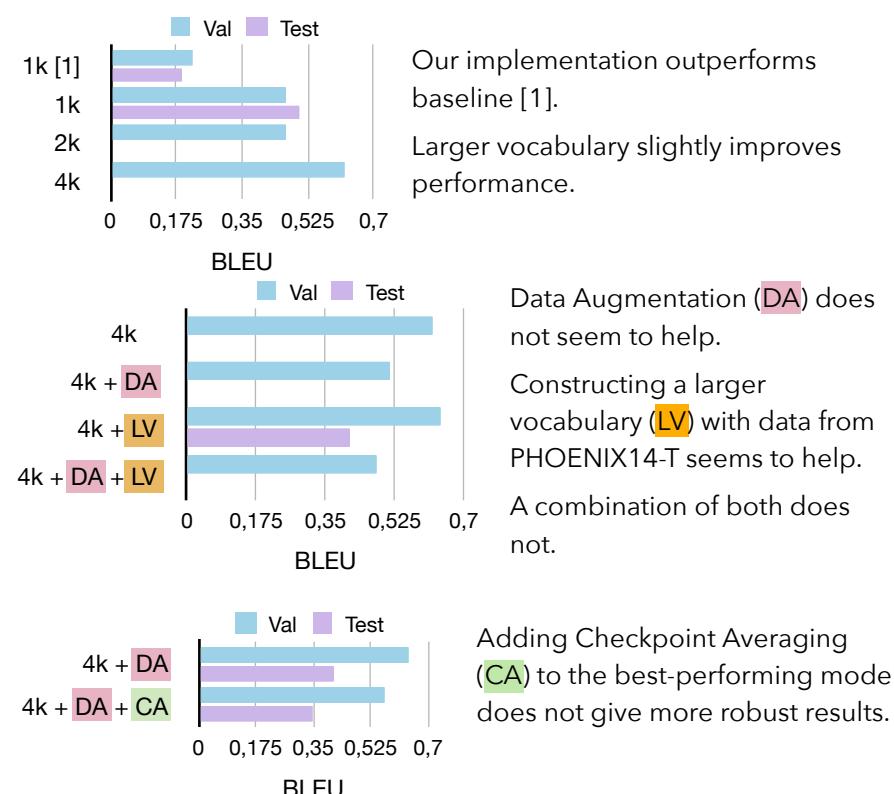
PROPOSED METHOD

We propose a Transformer implemented with **Fairseq**, including features from the **pose-format library** [2]:

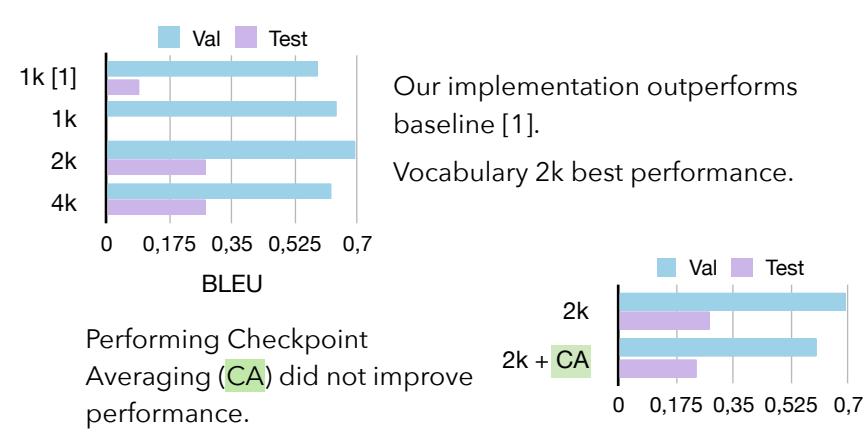


EXPERIMENTAL RESULTS

Results for a model trained on **FocusNews**:



Results for a model trained on **SRF**:



CONCLUSIONS & FUTURE WORK

We have:

- Proposed a pipeline in Fairseq
- Experimented with:
 - Data Augmentation.
 - Vocabulary size.
 - “Pre training”.
- Found **extremely low results**.

Future work:

- Joint training with SRF and FocusNews.
- Pre-training with Phoenix.
- Adapt architecture to work with Skeletons.
- Evaluating with chrF++.



Link to our code

Acknowledgements:

This research was partially supported by:

- PID2019-107579RB-I00
- PRE2020-094223
- PID2021-126248OB-I00
- PID2019-107255GB-C21

[1] Müller M; Ebling S; Elftherios A; et al. Findings of the WMT 2022 shared task on sign language translation. EMNLP, Abu Shabi, 2022.
 [2] Moryossef A. Complete toolkit for working with poses. 2022.
<https://github.com/AmitMY/pose-format/>