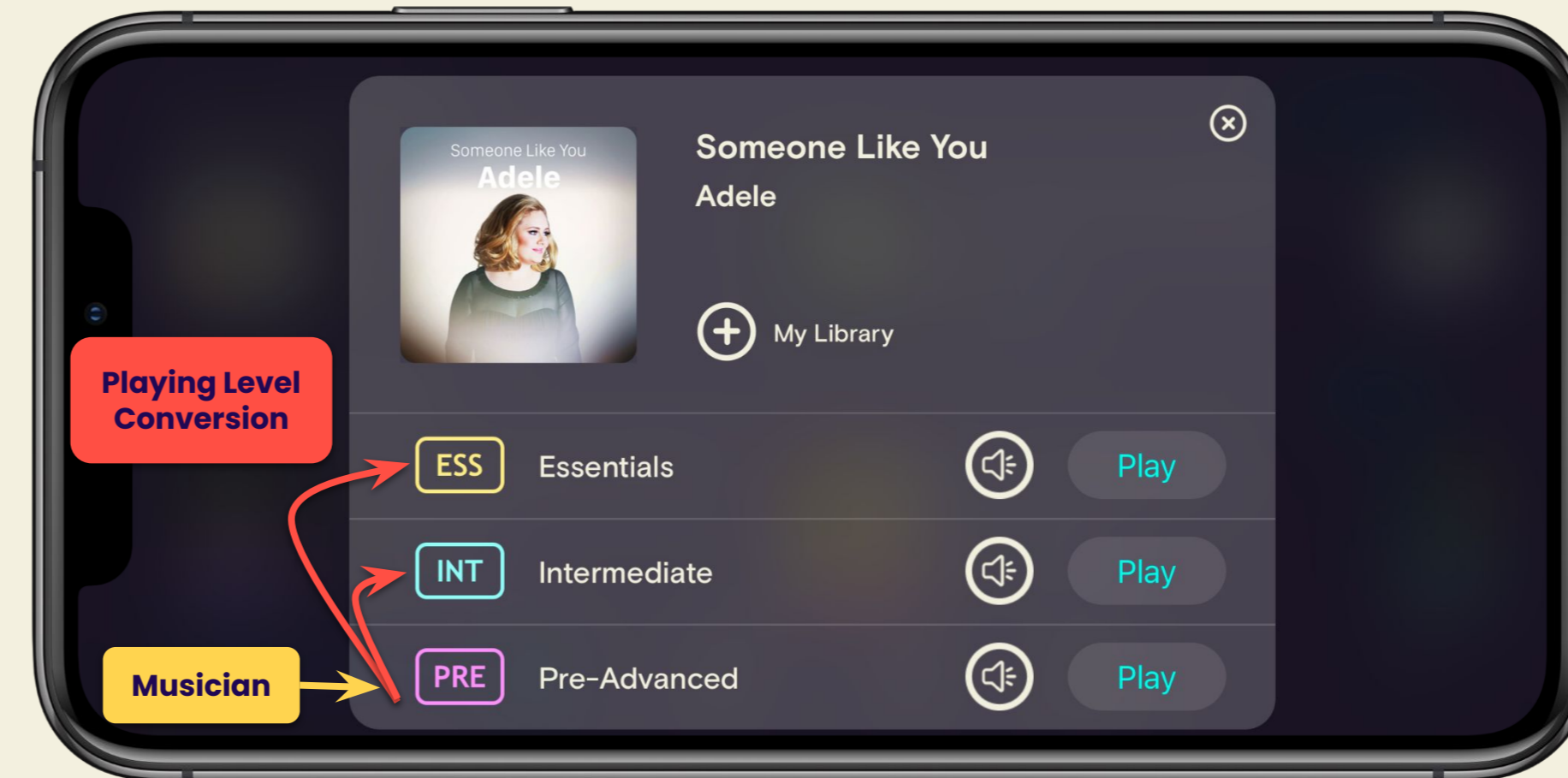
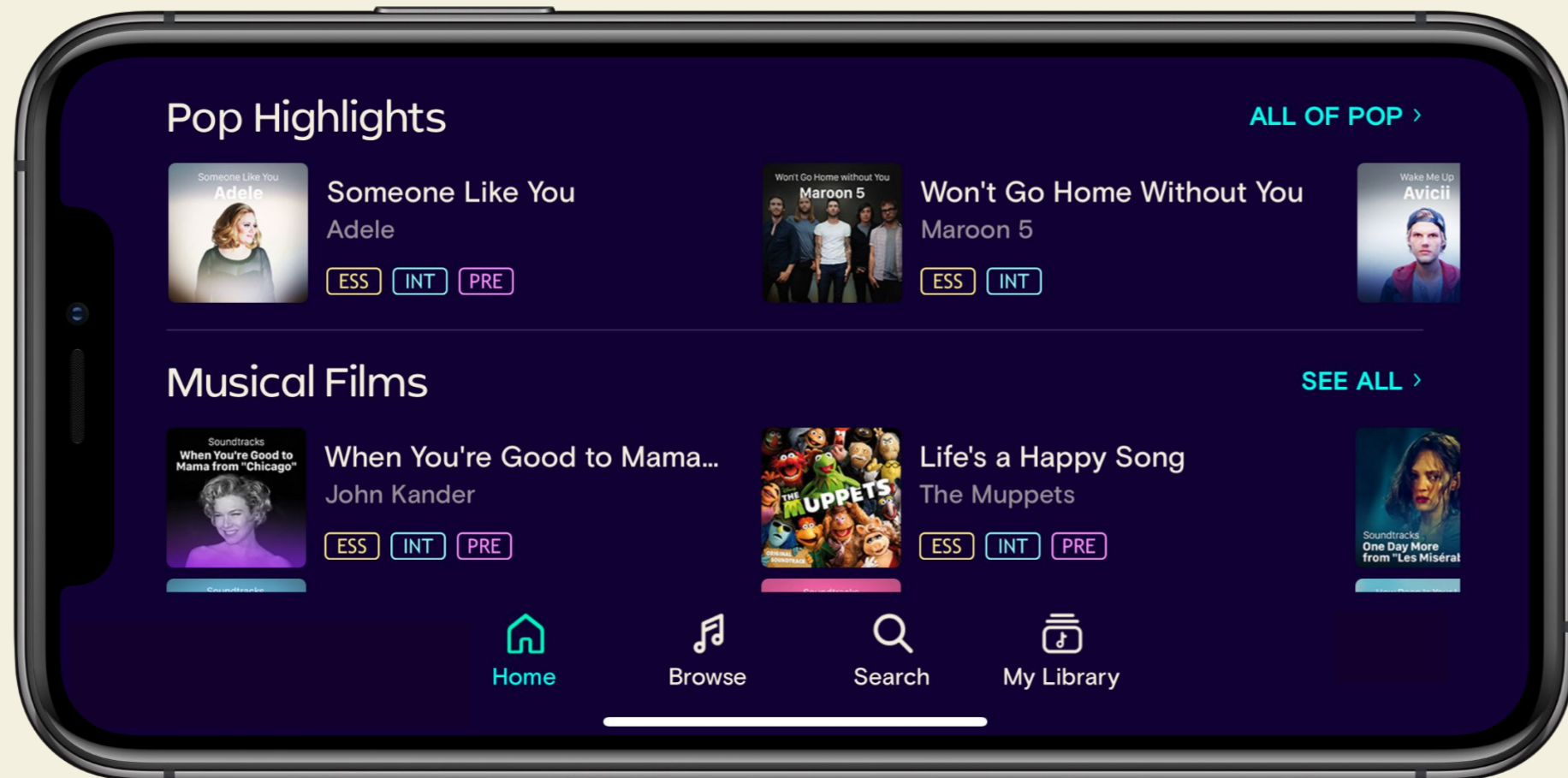


Music Translation

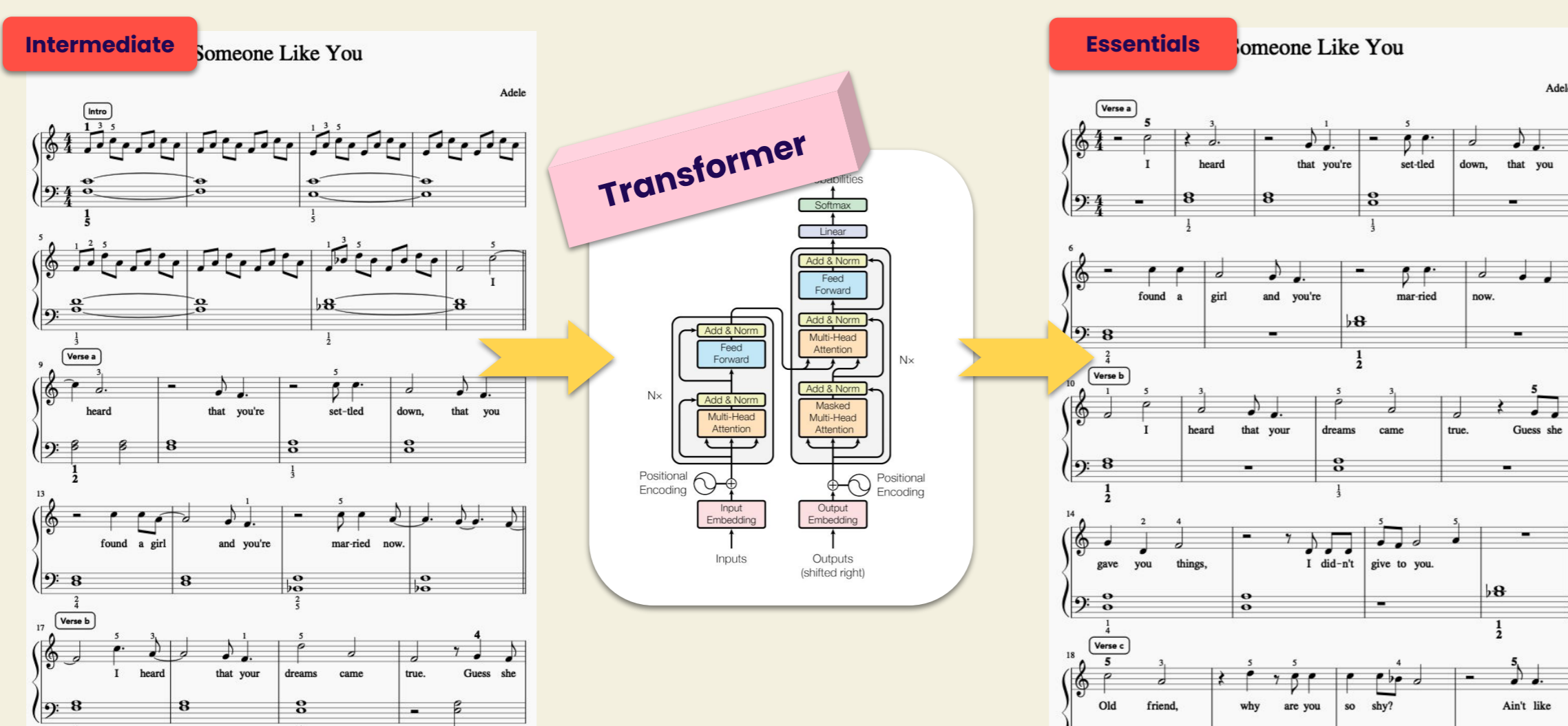
Generating Piano Arrangements in Different Playing Levels

Matan Gover and Oded Zewi @ ISMIR 2022

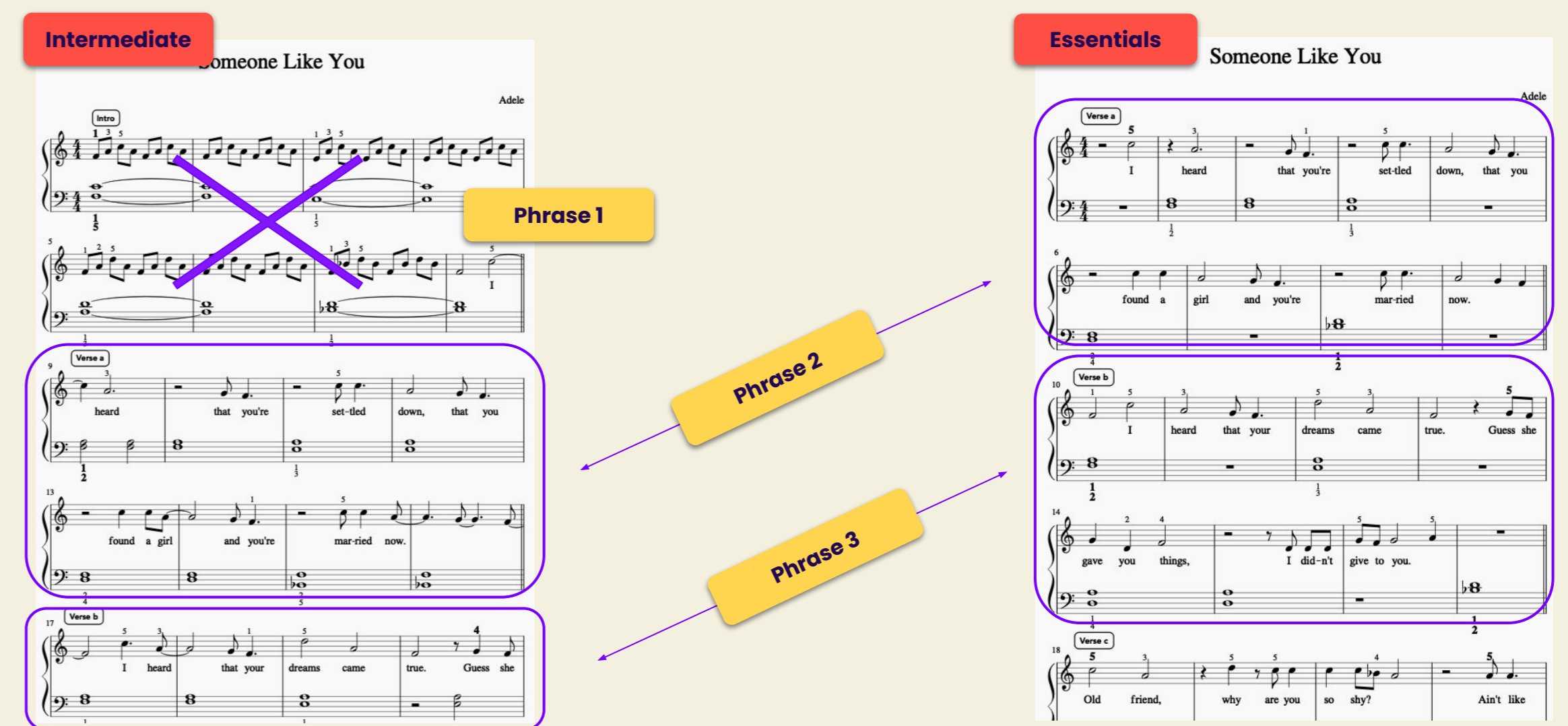
Our task: Playing level conversion
To help our musicians create arrangements



Using Transformer



Trained on matching phrase pairs



5,543 phrase pairs
from 1,191 songs

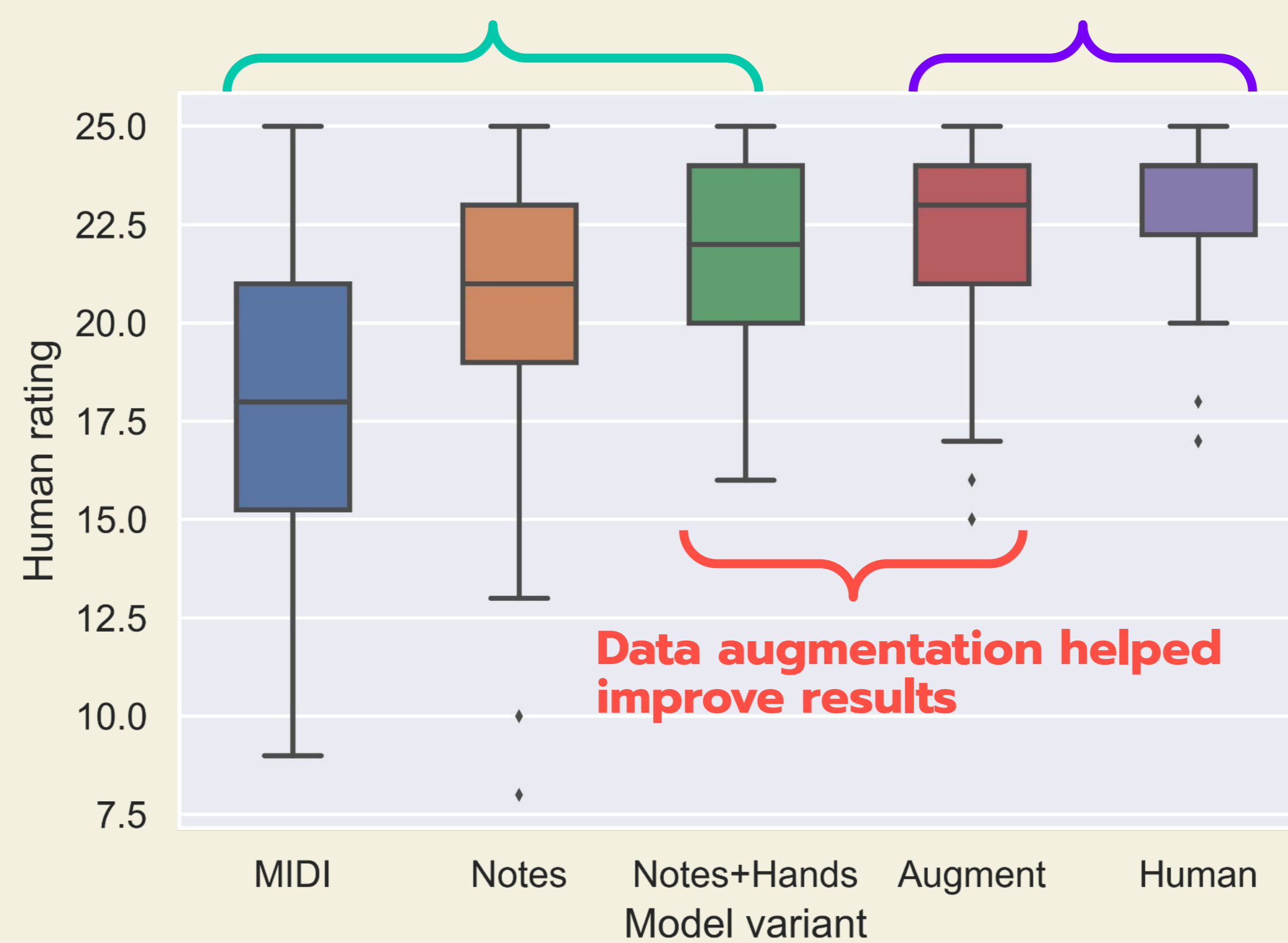
Results

Human ratings

- 6 expert musicians
- Rated 55 test examples
- From 4 model variants + ground truth
- Using 5 evaluation criteria

Choice of music representation greatly affected results

Our best model achieves scores almost as high as human arrangements



Automated evaluation

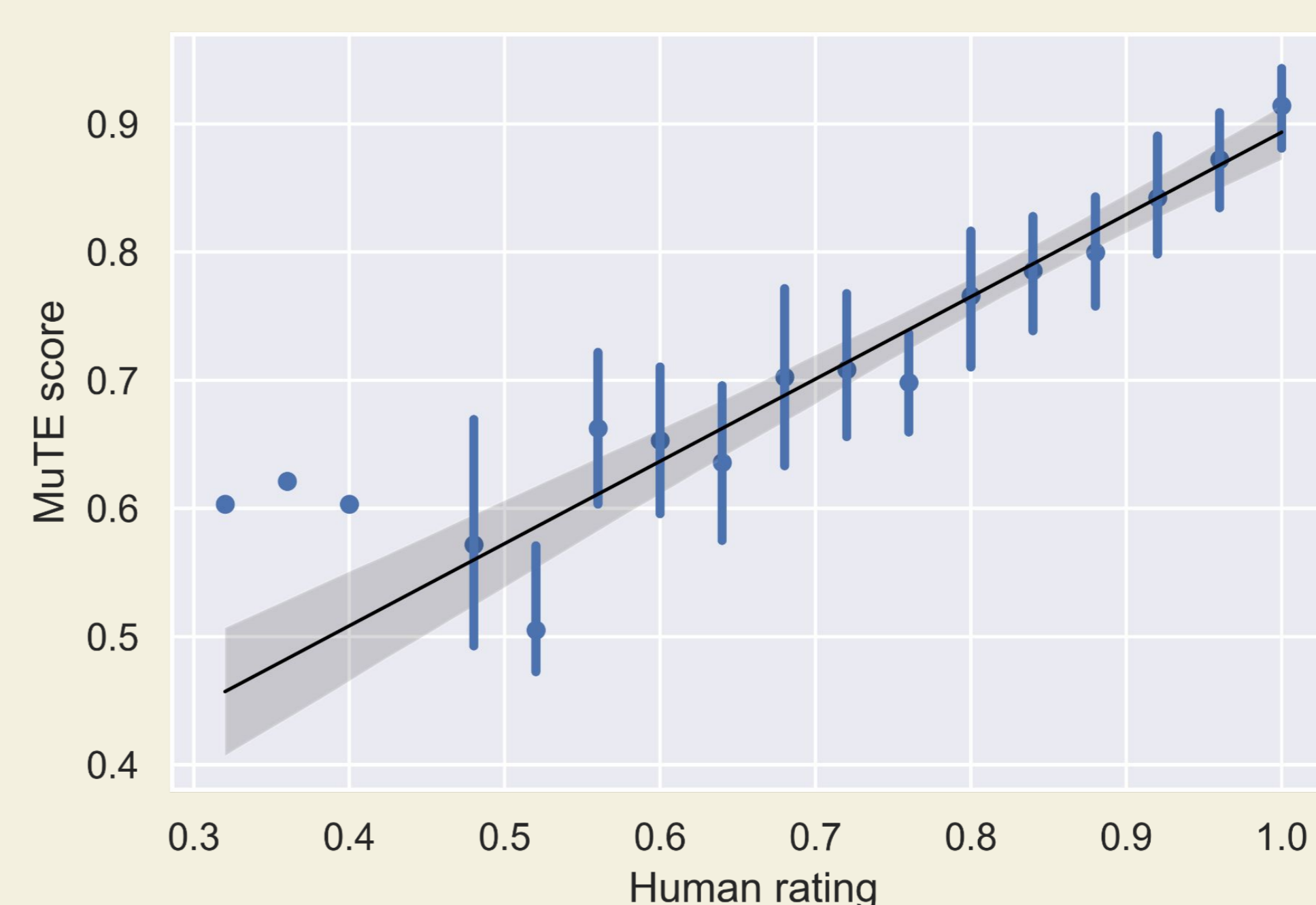
MuTE (Music Translation Evaluation)

"BLEU for music": Measures correspondence between generated translation and reference translation

Computes average pitch precision and recall across time frames



MuTE correlates with human ratings



Pearson correlation coefficient = 0.56