

## A primer on clinical-speech applications of deep learning

V. Berisha, J. Liss, M. Tu

Artificial intelligence and deep learning have recently gained considerable traction as useful tools for modeling latent, non-linear relationships in data. Speech recognition has seen the fruits of innovation in this area as word error rates have decreased and are now on par with human performance in certain applications. Similar advances are possible in the clinical domain as well.

In this presentation, we aim to provide a brief overview of deep learning and to demonstrate the utility of these algorithms for the objective evaluation of speech quality through modeling of expert perceptual ratings of dysarthric speech severity. Such a tool has the potential to overcome clinical bias, which poses a serious threat to clinical practice.