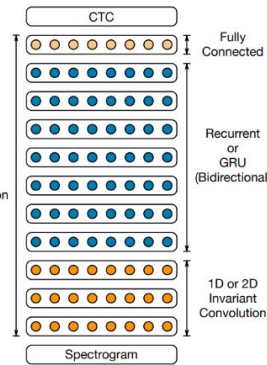
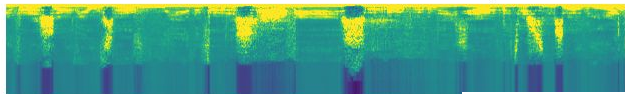


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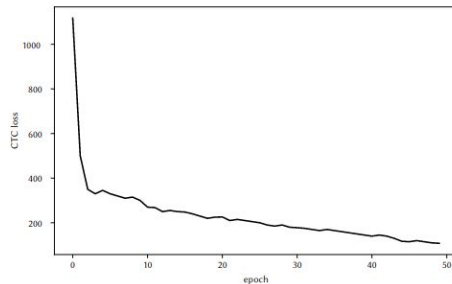
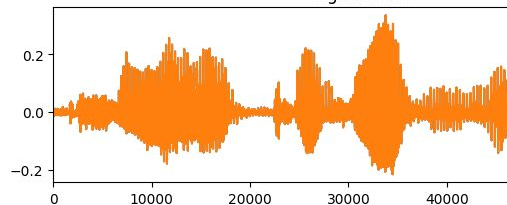
- Application of Artificial Neural Networks (ANN) to Automatic Speech Recognition (ASR) on a Novel Dataset created using YouTube
- Approach involves using Connectionist Temporal Classification and LSTM units similar to the architecture of Google's Deep Speech 2.
- Data were obtained from YouTube, transformed using Discrete Fourier Transformation, and partitioned accordingly for supervised learning.
- The model with approximately 26 million parameters was trained on a 3090ti.
- 50 epochs of training were conducted on 10 hours of speech data achieving a WER of 66.9.
- Size of model occupied GPU memory and forced small batch size and increased length of training therefore constraining the feasible size of the dataset
- Could have just used Deep Speech 2 and evaluated it on the novel YouTube dataset, but I wanted to learn about CTC and train the model myself, so it was a nice investigation.



so the observable universe is the distance that light has



Signal Wave



- 1) Target: in eighteen eleven williams who murdered the marris in ratcliffe highway having committed suicide in jail to escape hanging
 - 2) Prediction: in aite a leven wiloms wo murered the mars and relit hywa hing commisted suasid in jail to sca aning
 - 3) Target: on his release an uncle a slopseller in chatham gave him a situation as barker or salesman
 - 4) Prediction: on his relays and oncal ay sloselr in shaterm ga himmasituation as barker or salsmon
 - 5) Target: even after sentence and until within a few hours of execution he was buoyed up with the hope of reprieve
 - 6) Prediction: the vin after senten sand intil within of forsobex-
cution he as boio with thu hal profrprve
 - 7) Target: oswald's marine training
 - 8) Prediction: oswalds moain traning
 - 9) Target: these materials are used by the animal in the manu-
facture of new protoplasm to take the place of that which
has been used up
- Prediction: thes materials ar us by the animol in the many-
factur of n protoplasm to tak the place of that which has
beedusdu