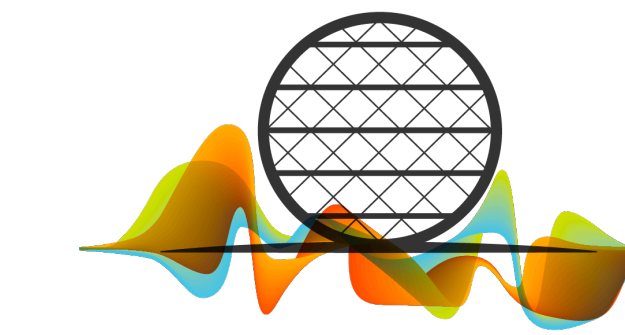


Real-time Automatic Piano Music Transcription System



ISMIR
MTL2020



An AMT Model that runs in **Real-time in CPU with Web Canvas Visualization**

Late Breaking / Demo

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Polyphonic Piano Transcription Using Autoregressive Multi-state Note Model



Kwon et. al., ISMIR 2020

– Multi-state Note Model

Instead of predicting onset and sustain separately, the model selects a single state among five note states for each pitch and frame.

– Auto-regressive Connection

The final layer of the model, unidirectional LSTM, takes the result of previous frame as an input for the following step.

– Advantages in online scenario

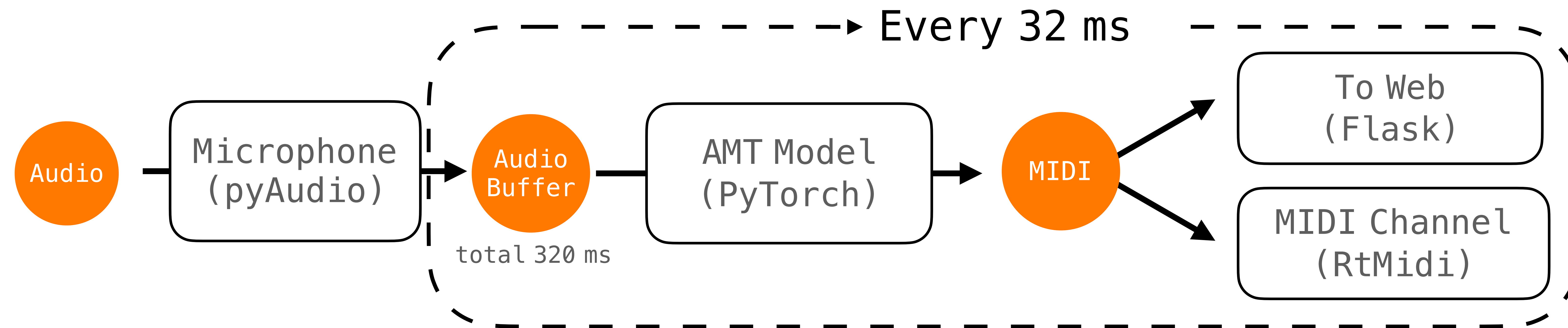
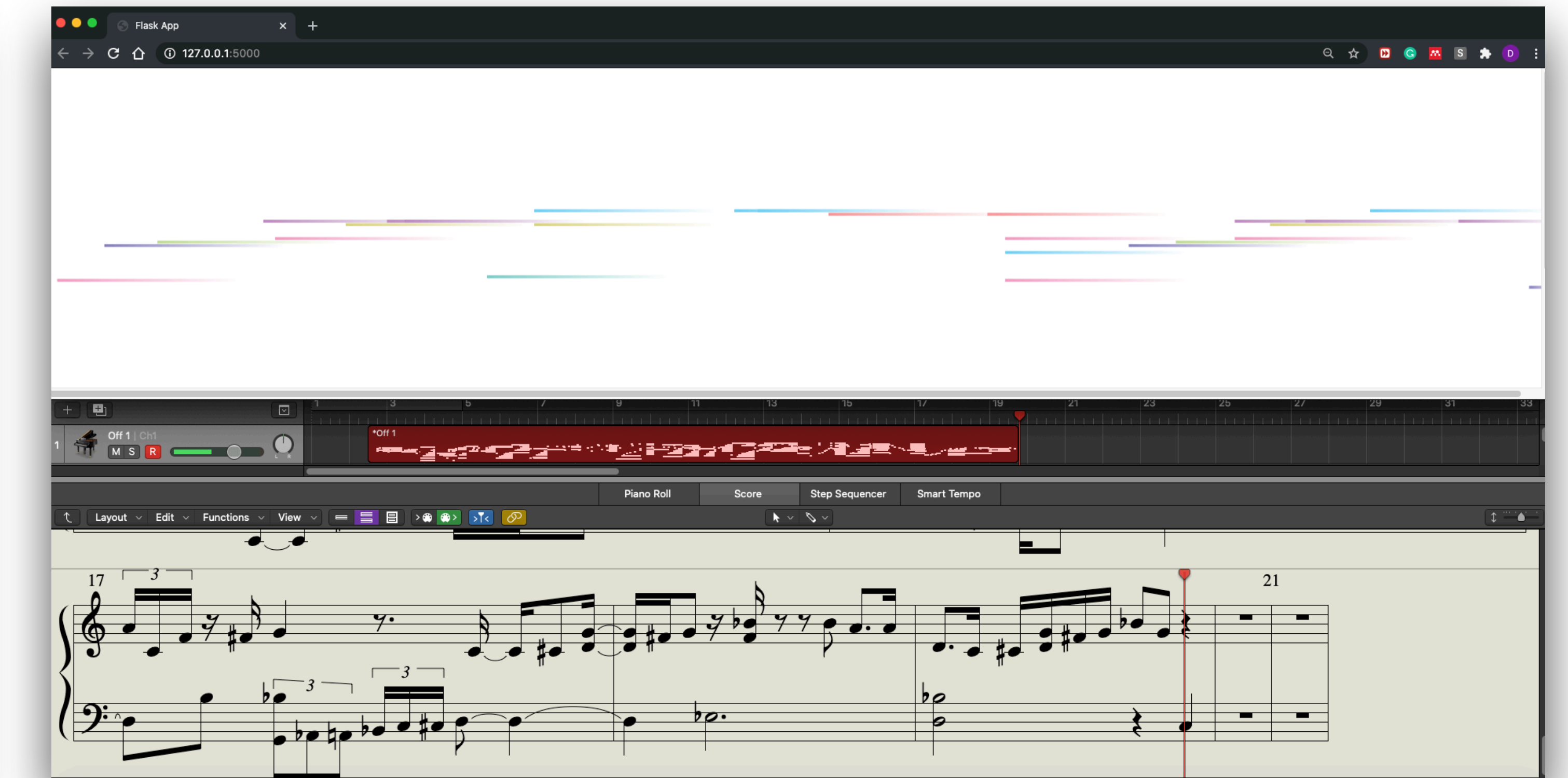
1. No need of complex note-level decoding, because of multi-state estimation and auto-regressive connection
2. Mathematically, the model's computation is exactly the same whether the model runs in offline or online.

https://taegyunkwon.github.io/ar_multi_transcription/

Web Canvas Visualization



With Real-time Logic Pro Visualization



Source code and a pre-trained model are available on GitHub



https://github.com/jdasam/online_amt