

## Appendix

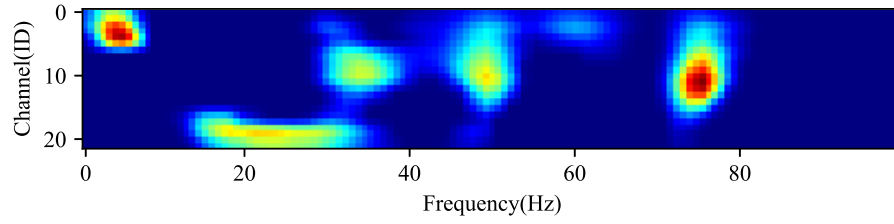
**Problem Definition** In this paper, we focus on the task of EEG-based automated seizure type classification, which is a multi-class classification task. The goal is to predict the seizure type  $y$  given a multi-sensor EEG clip  $E \in \mathbb{R}^{N \times T}$  where  $N$  and  $T$  stands for the number of EEG sensors and sequence length, respectively.

**Grad-CAM Visualization** The TUSZ v1.5.2 dataset provides sensor-wise annotation, allowing qualitative analysis of consistency between sensors (EEG channels) attended by the model and annotations. We used Grad-CAM to interpret the model’s decision. The heat maps obtained by Grad-CAM of representative examples of different seizure types are illustrated in Fig. S1. All examples are correctly classified by our DA-ATSS. The horizontal axis corresponds to frequency and the vertical axis shows the channel (number as 0-21). The channel information of corresponding ID is depicted in Tab. S1.

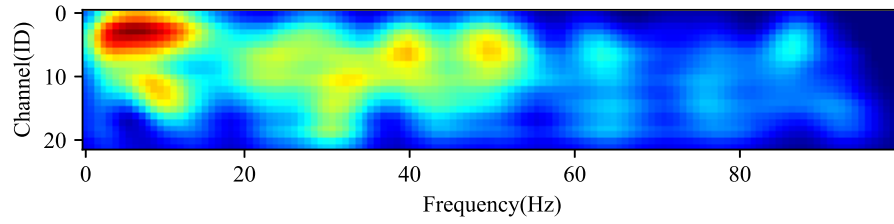
Table S1: The EEG channel information of corresponding channel ID

Channel ID	Channel name	Channel ID	Channel name
0	FP1-F7	11	CZ-C4
1	F7-T3	12	C4-T4
2	T3-T5	13	T4-A2
3	T5-O1	14	FP1-F3
4	FP2-F8	15	F3-C3
5	F8-T4	16	C3-P3
6	T4-T6	17	P3-O1
7	T6-O2	18	FP2-F4
8	A1-T3	19	F4-C4
9	T3-C3	20	C4-P4
10	C3-CZ	21	P4-O2

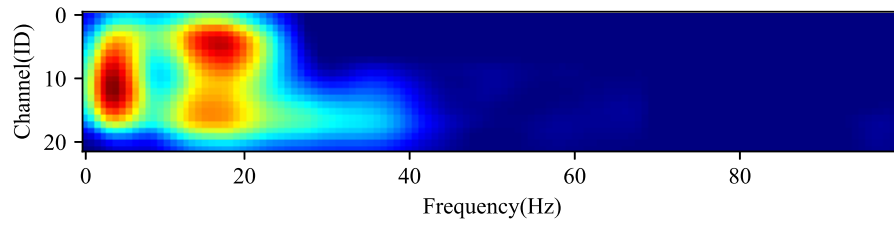
We found high overlap between sensors attended by model and annotations. For the representative example of CFSZ, the EEG experts annotated the seizure occurring at channel 0-3, 8-10 and 14-17, whereas the model attends to the low frequency components of channel 0-3, as well as medium-high frequency bands of channel 8-12 (see Fig. S1(a)). For the representative example of GNSZ, ABSZ and CTSZ, experts annotated the seizures at all channels. As can be seen from Fig. S1, the model also attends to almost all EEG channels, showing high overlap with the annotations.



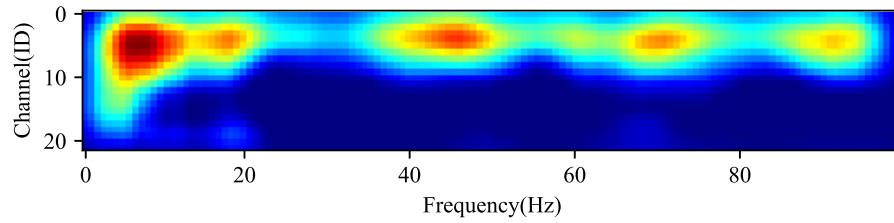
(a) CFSZ



(b) GNSZ



(c) ABSZ



(d) CTSZ

Fig. S1. The Grad-CAM visualization of representative samples from different seizure types.