UTHealth
The University of Texas Health Science Center at Houston
School of Biomedical Informatics

DSICCR Tuesday Seminar Series

Tuesday at Noon, Click Here to Join

Transformer for Medical Image Analysis

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Deep convolutional neural networks have been widely adopted for medical image segmentation with Unet and its derivative architectures achieving high performances in many applications. However, due to inherent inductive biases present in convolutional architectures, they lack understanding of long range dependencies in the image.
In the same time, Transformers, originally proposed in NLP, have proven to encode long-range dependencies and learn representations that are highly expressive. Their recent uses for classification or segmentation in medical image analysis have shown, in some cases, superior performances than Unet based architectures.
The talk will cover some of the recent Transformer based architectures, starting from ViT, to Swin, TransUNet and more with some preliminary results obtained in the case of cardiac imaging.

Tuesday, April 5th, 2022. 12p – 1p. Webcast

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