

Sequencing Success: A Hands-On Workshop in Deep Learning for Sequence-to-Sequence Models





This hands-on workshop focused on sequence-to-sequence (Seq2Seq) learning, a popular deep learning technique used for various natural language processing (NLP) tasks such as machine translation, speech recognition, etc. The workshop aims to provide participants with a comprehensive understanding of Seq2Seq models and equip them with the necessary skills to implement and train their own models. The workshop will cover theoretical and practical aspects of Seq2Seq learning, enabling participants to apply this powerful technique to real-world NLP problems.

Scope: The workshop will provide participants with hands-on experience through interactive coding sessions in google collab cloud services. So the participants only need to bring laptops with access to the internet.

Resource persons

Dr. Uthayasanker Thayasivam

Dr. Nisansa de Silva

Mr. Sritharan Braveenan

Mr. Velayuthan Menan

Outline

Introduction to sequence to sequence learning

Sequence-to-sequence learning with recurrent neural networks (RNN)

Sequence to sequence learning with encoder-decoder

Sequence-to-sequence learning with encoder-decoder with attention

PreRequesit

We expect the participants to be able to code in Python and be able to use Frameworks such as Pandas and PyTorch.

Outcome

Participants will gain insights into the challenges associated with training Seq2Seq models, such as handling input and output sequences of varying lengths, addressing the issue of vanishing/exploding gradients and mitigating overfitting.



11th November 9.00 AM to 1.00 PM

