퍼셉트론 to XLNet 로드맵

START

이강훈 한국인공지능연구소장

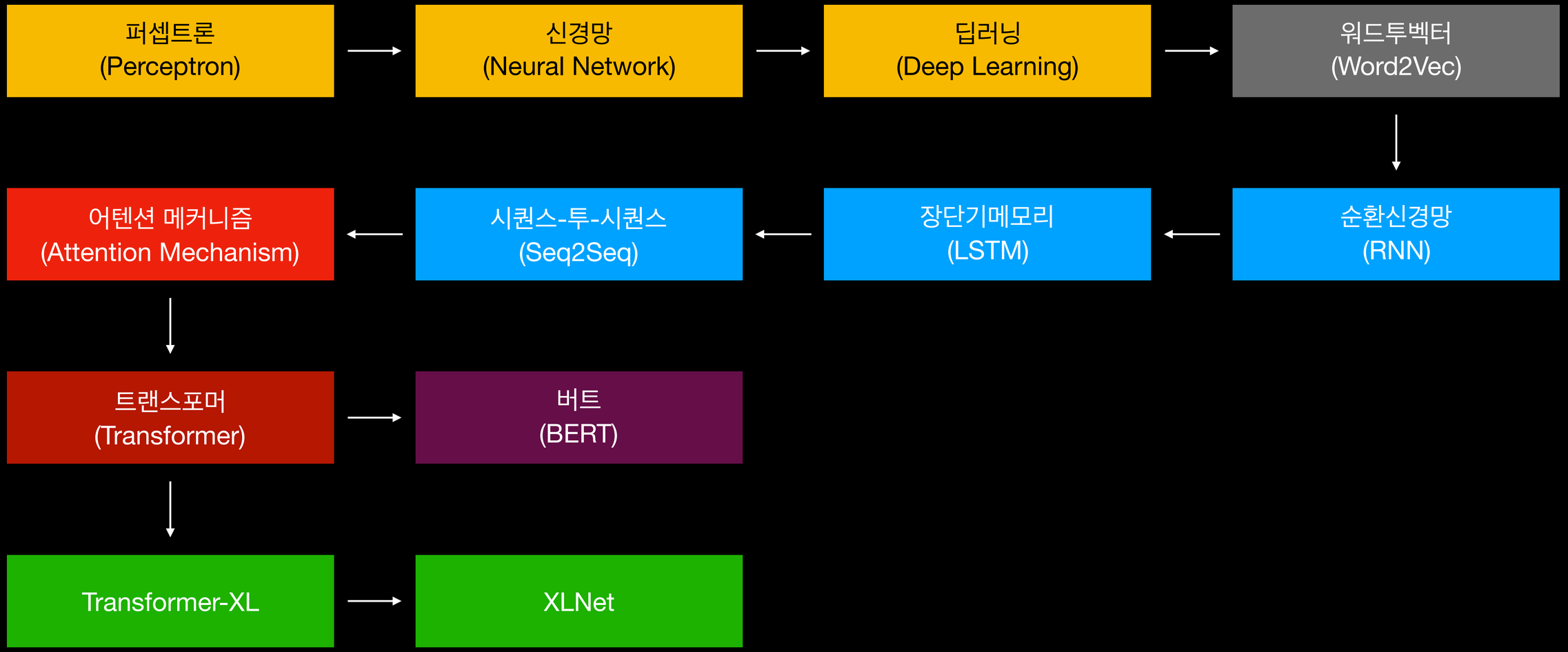
목차

- 소개
- 퍼셉트론 to XLNet 로드맵

참고

- 허민석님 (https://www.youtube.com/user/TheEasyoung/)
- 나동빈님 (https://www.youtube.com/channel/UChflhu32f5EUHlY7_SetNWw/)
- 10분 딥러닝 (https://www.youtube.com/channel/UCSjQTKAWlgUB3voH_1zBdJg)

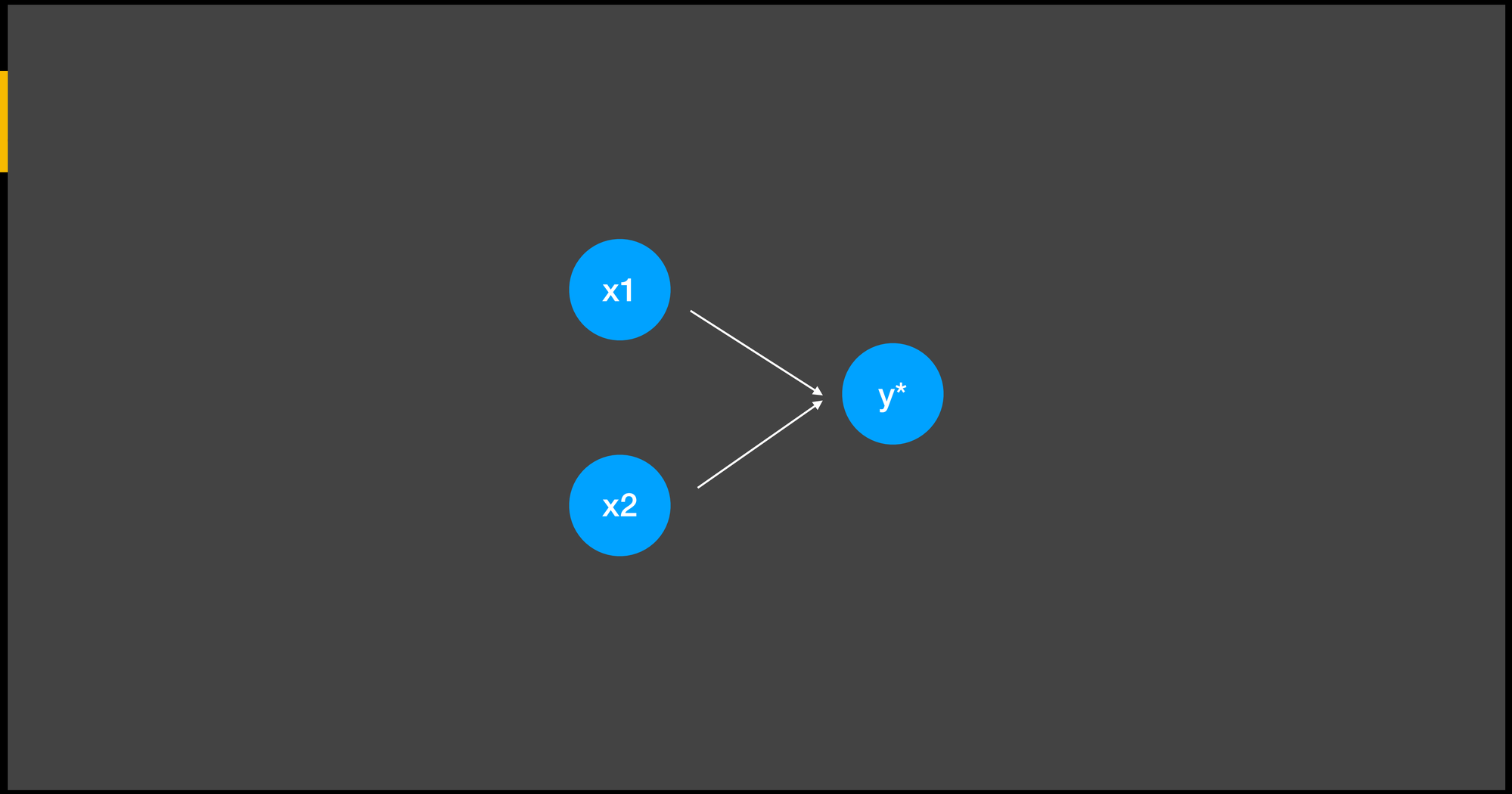
퍼셉트론 to XLNet 로드맵



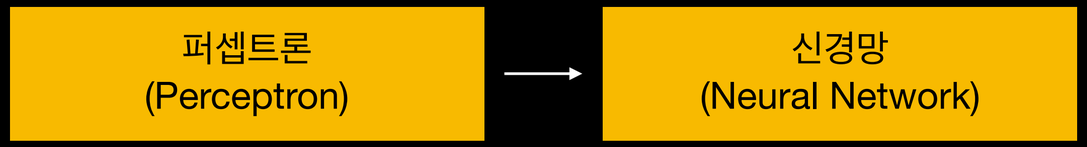
퍼셉트론 to XLNet 로드맵

퍼셉트론
(Perceptron)

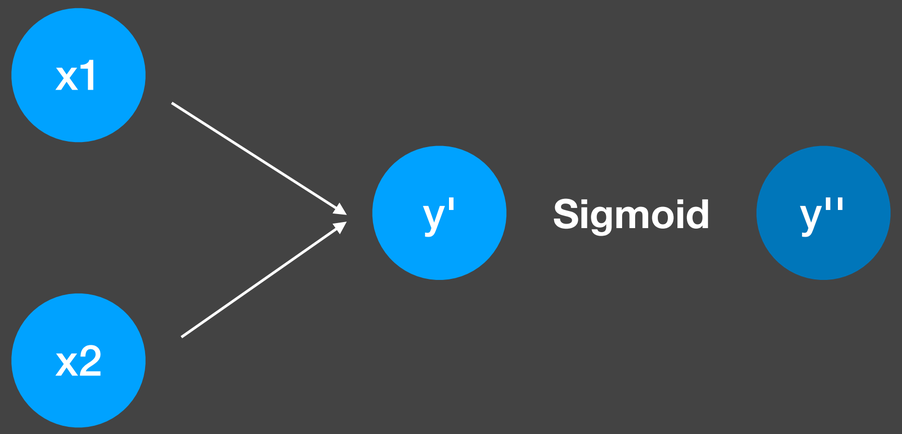
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵

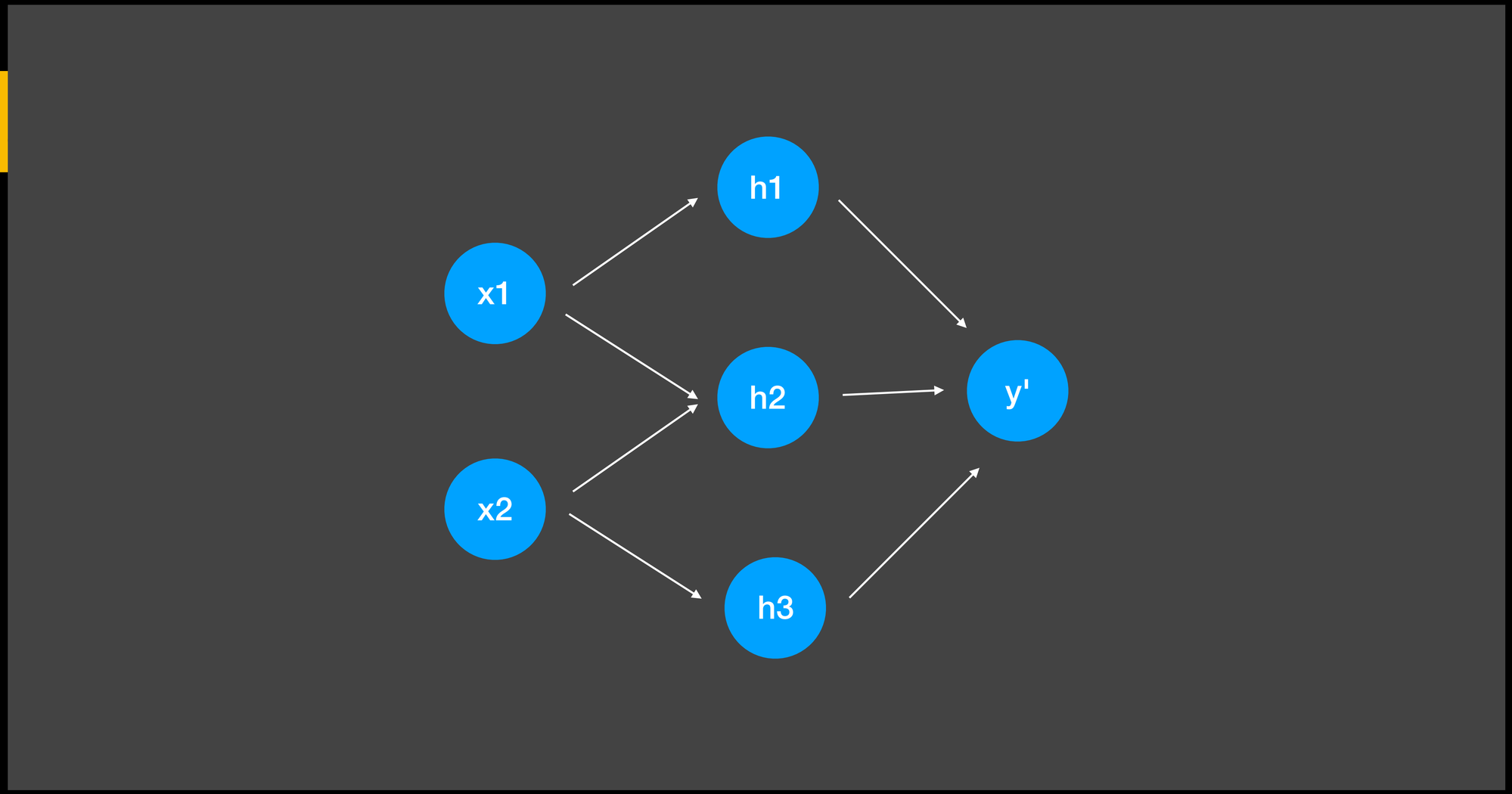


퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵

퍼셉트론 to XLNet 로드맵

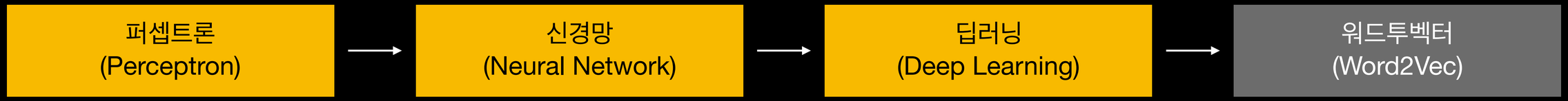


퍼셉트론 to XLNet 로드맵

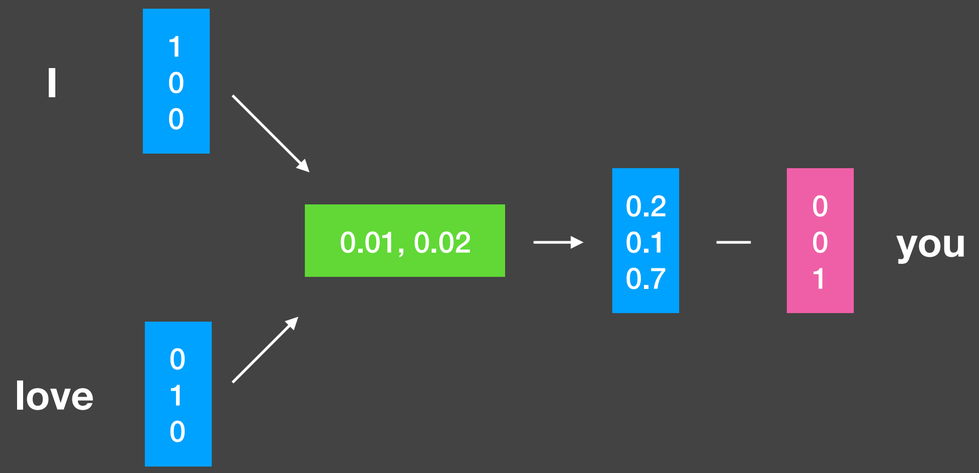
자연어처리?

문자 데이터를 딥러닝으로 학습할 수 있을까?

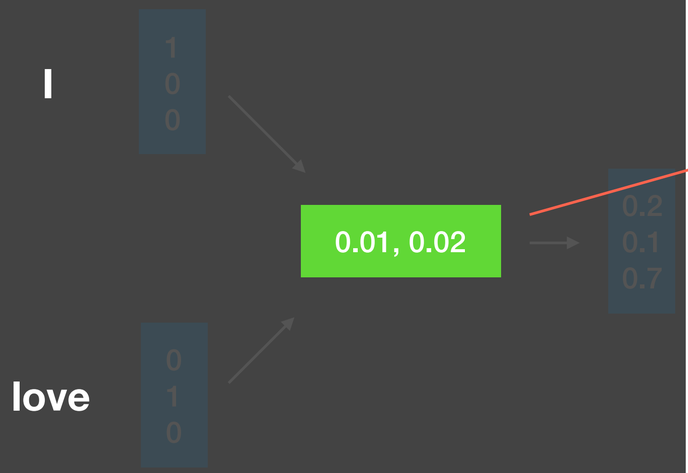
퍼셉트론 to XLNet 로드맵

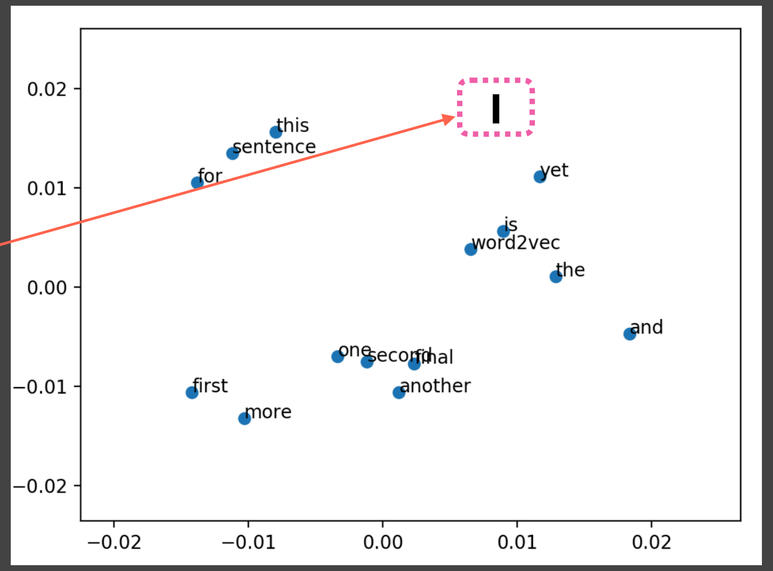


퍼셉트론 to XLNet 로드맵

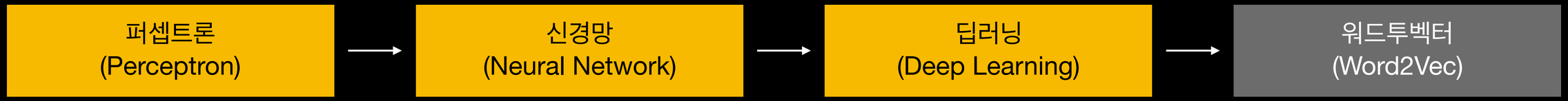


퍼셉트론 to XLNet 로드맵





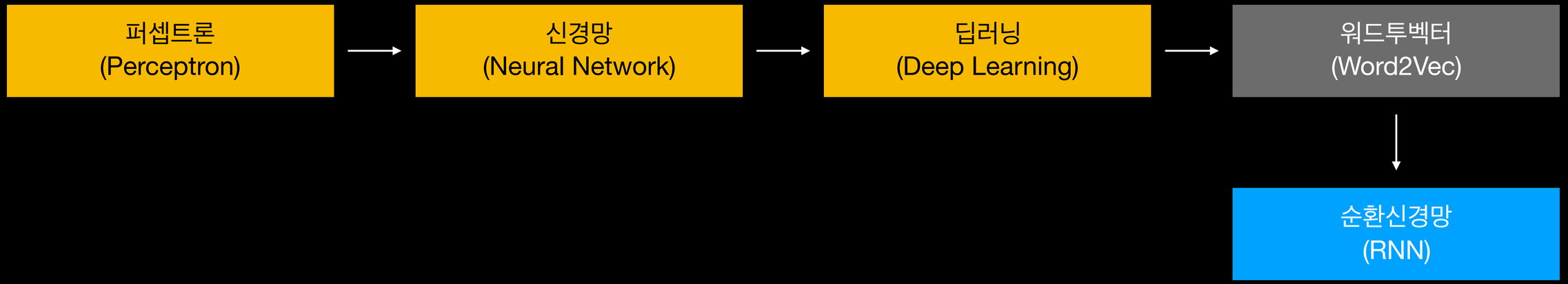
퍼셉트론 to XLNet 로드맵



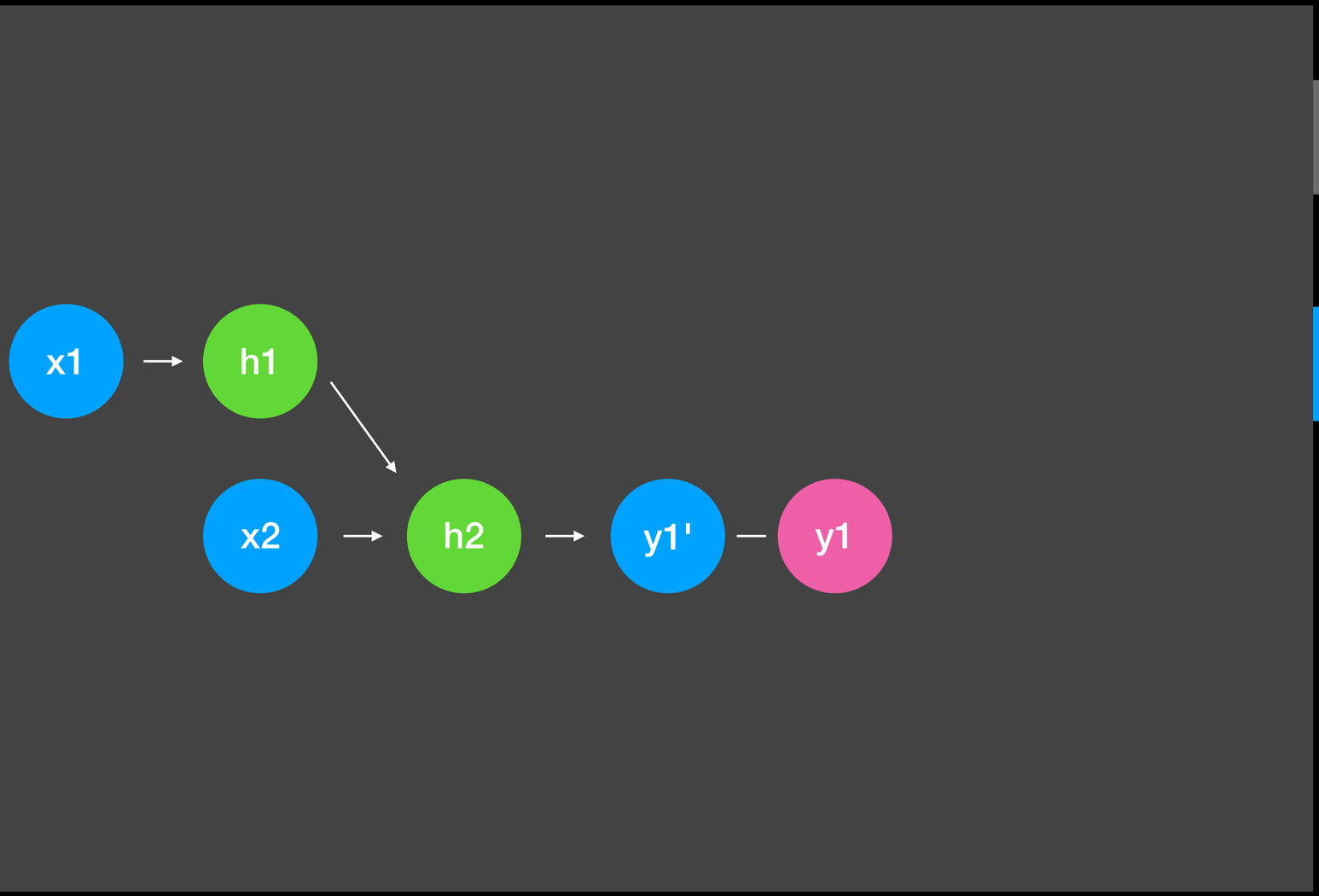
시계열 처리?

말의 순서에 의미를 표현할 방법이 있을까?

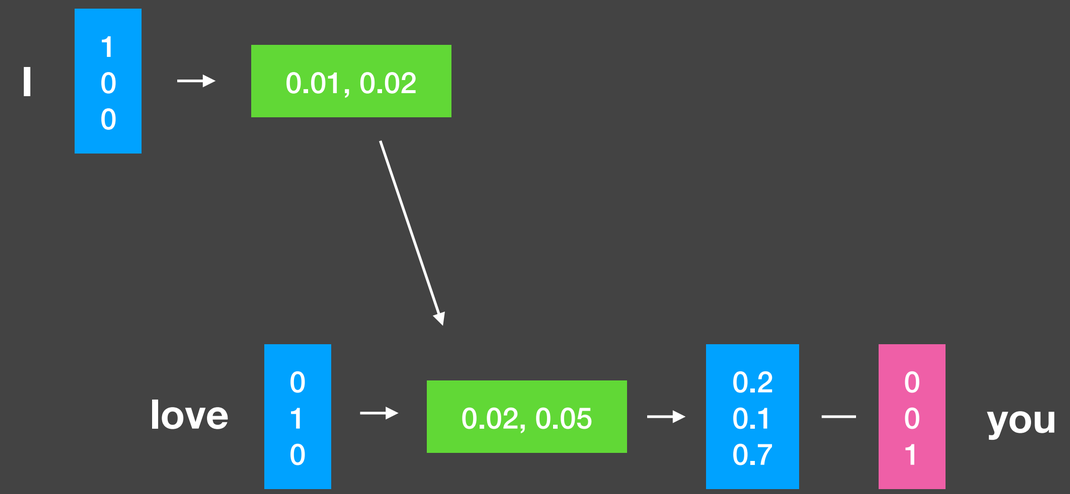
퍼셉트론 to XLNet 로드맵



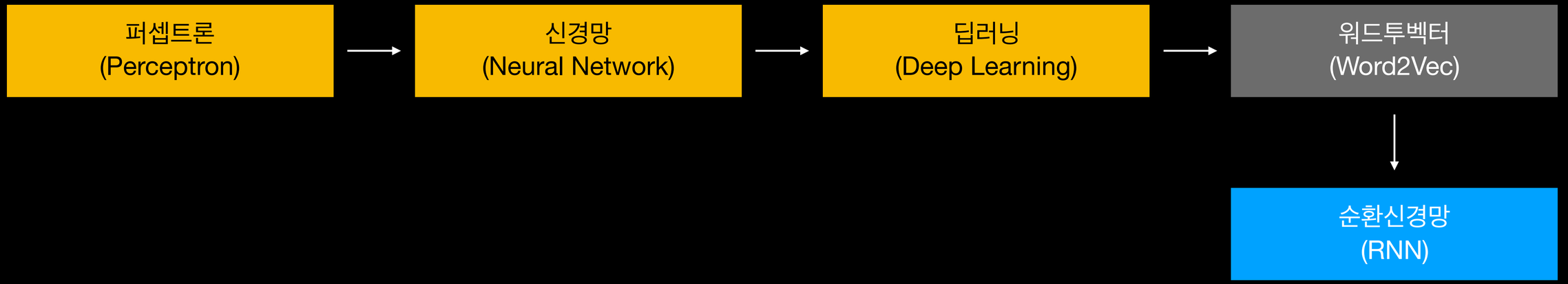
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



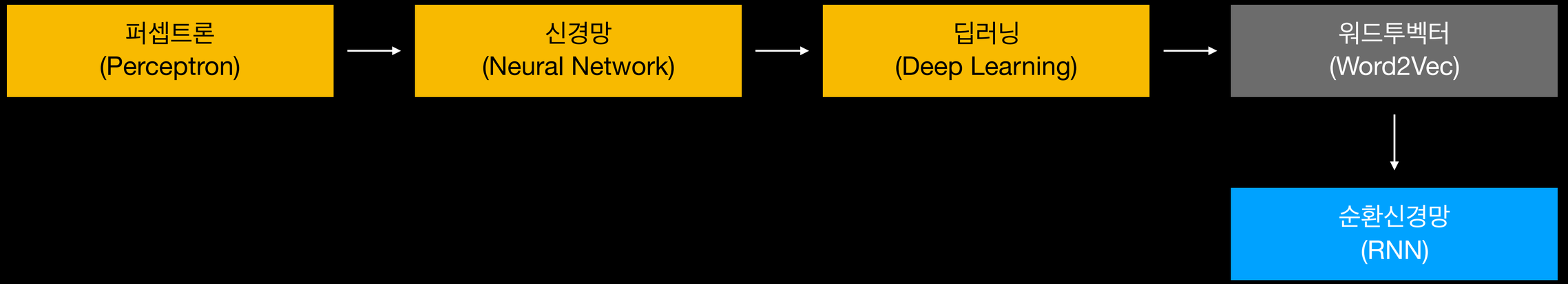
퍼셉트론 to XLNet 로드맵



장문장에서의 학습이 어려움!!

장문장에서 거리가 먼 단어와의 관계 정보가 소멸됨!!

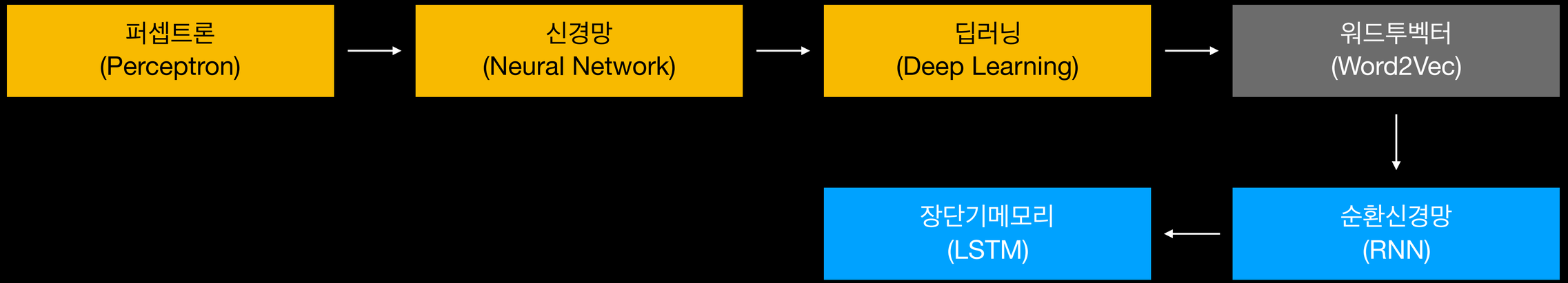
퍼셉트론 to XLNet 로드맵



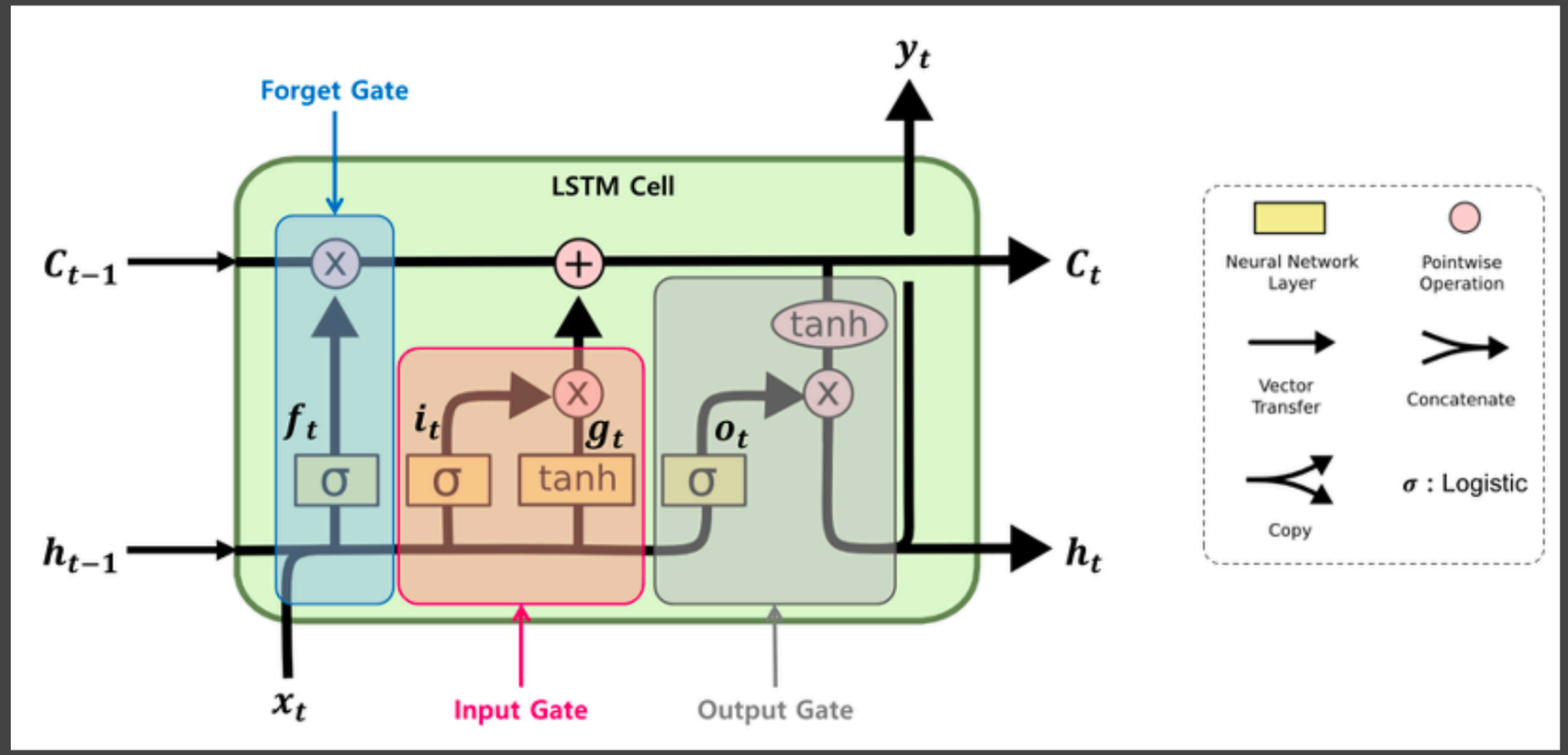
기억할 것은 기억, 잊을 것은 잊자!

장문장에서 거리가 먼 단어와의 관계 정보가 소멸됨!!

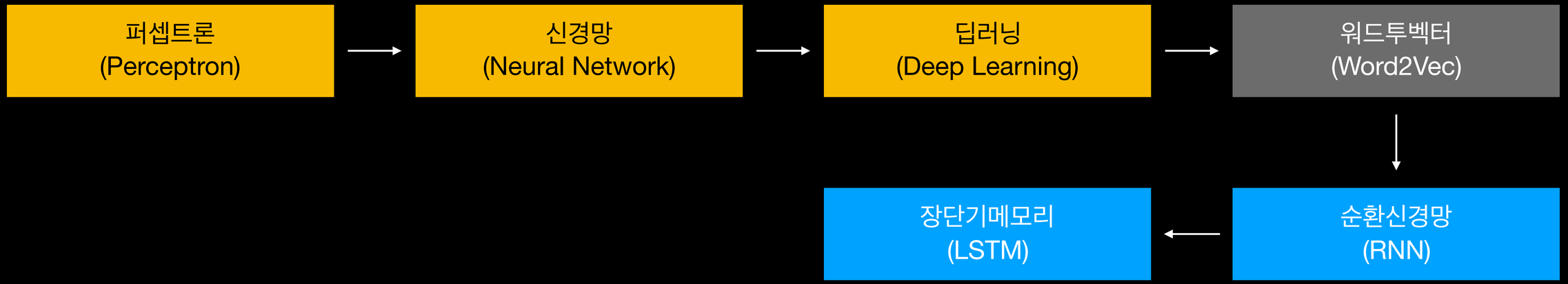
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



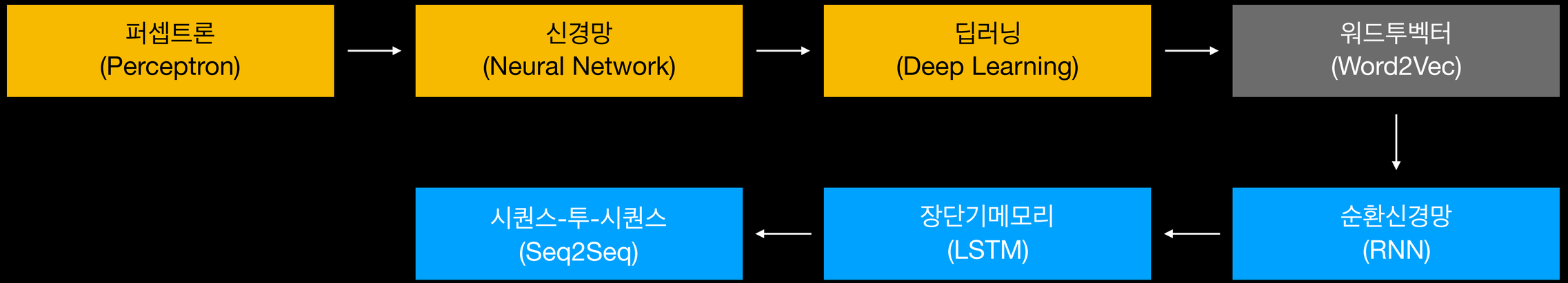
퍼셉트론 to XLNet 로드맵



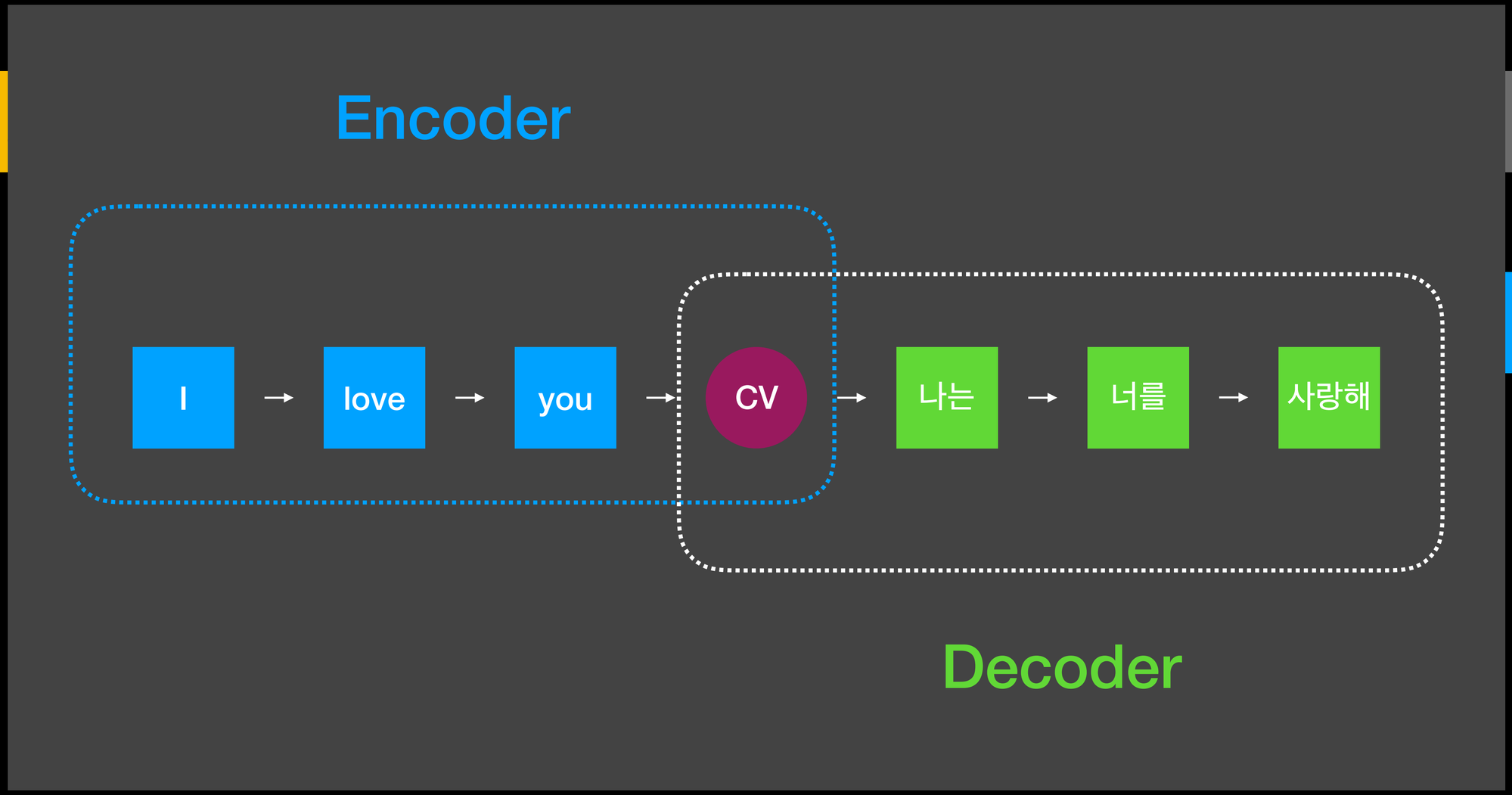
기계번역 등 언어모델?

문장을 입력받아, 문장을 생성하는 모델을 연구해보자!

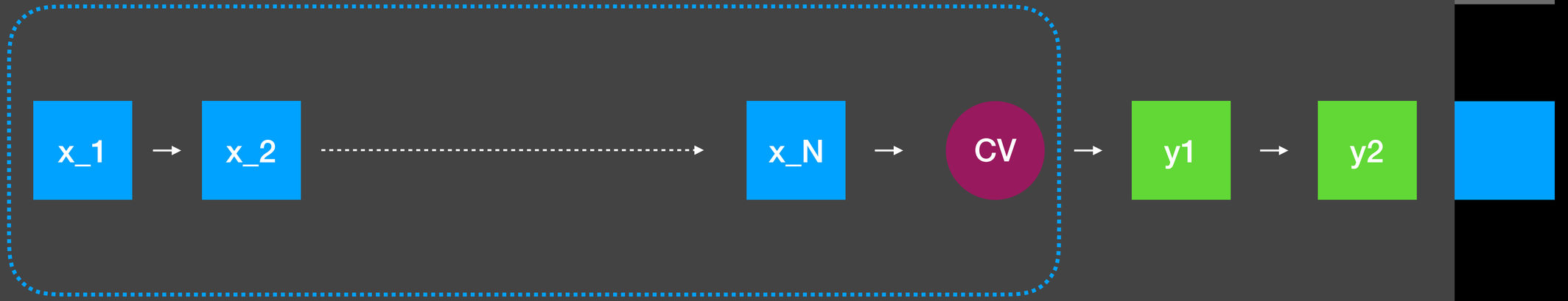
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



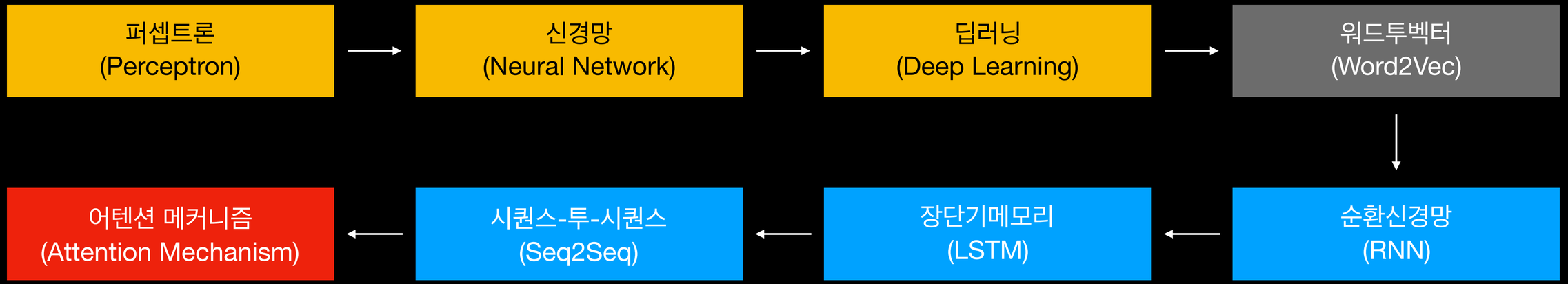
퍼셉트론 to XLNet 로드맵



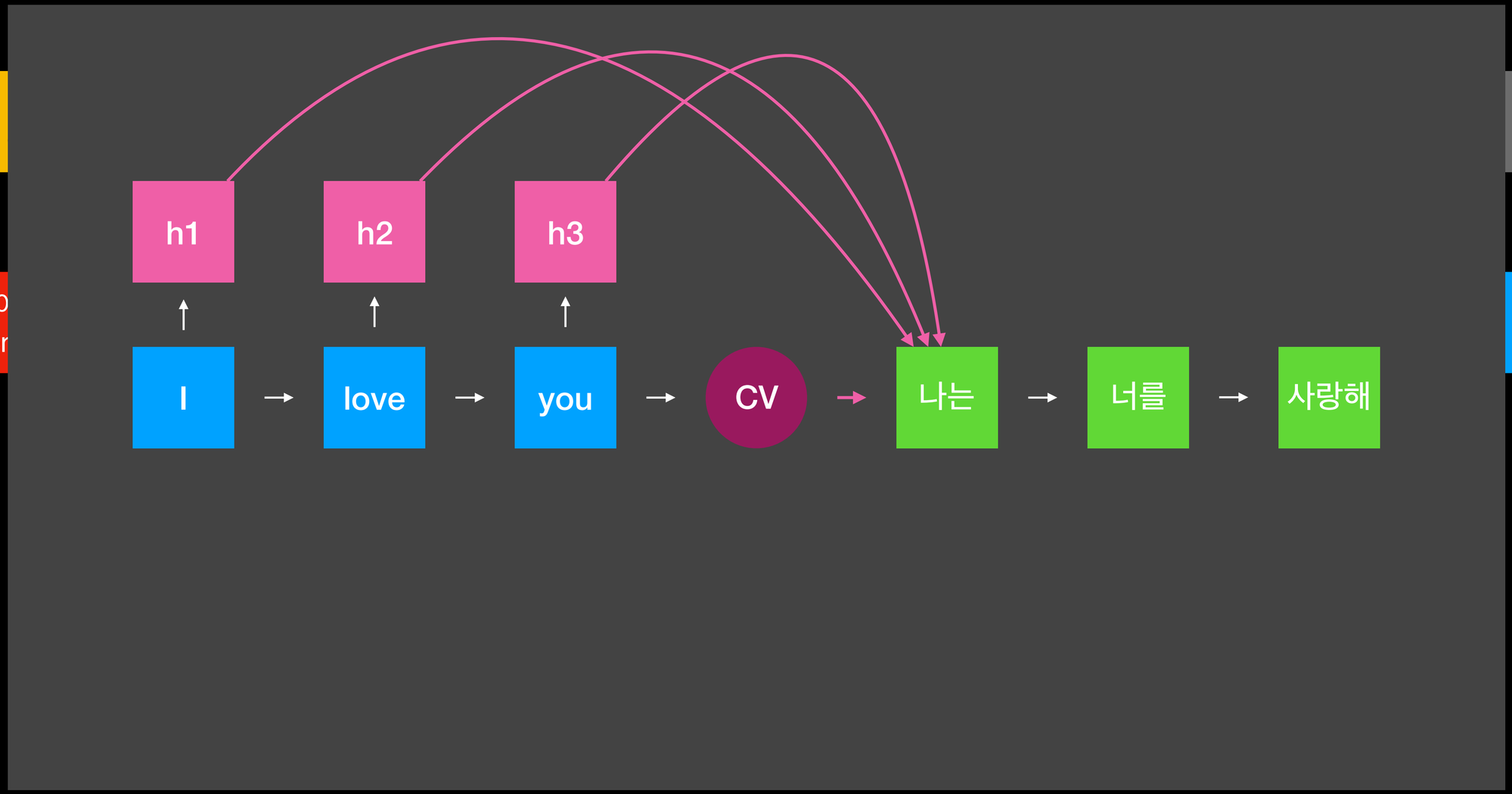
문장이 길어졌을때 문제 발생!!

긴 문장을 한개의 Context Vector 로 표현하는데에 있어 한계가 있음!!

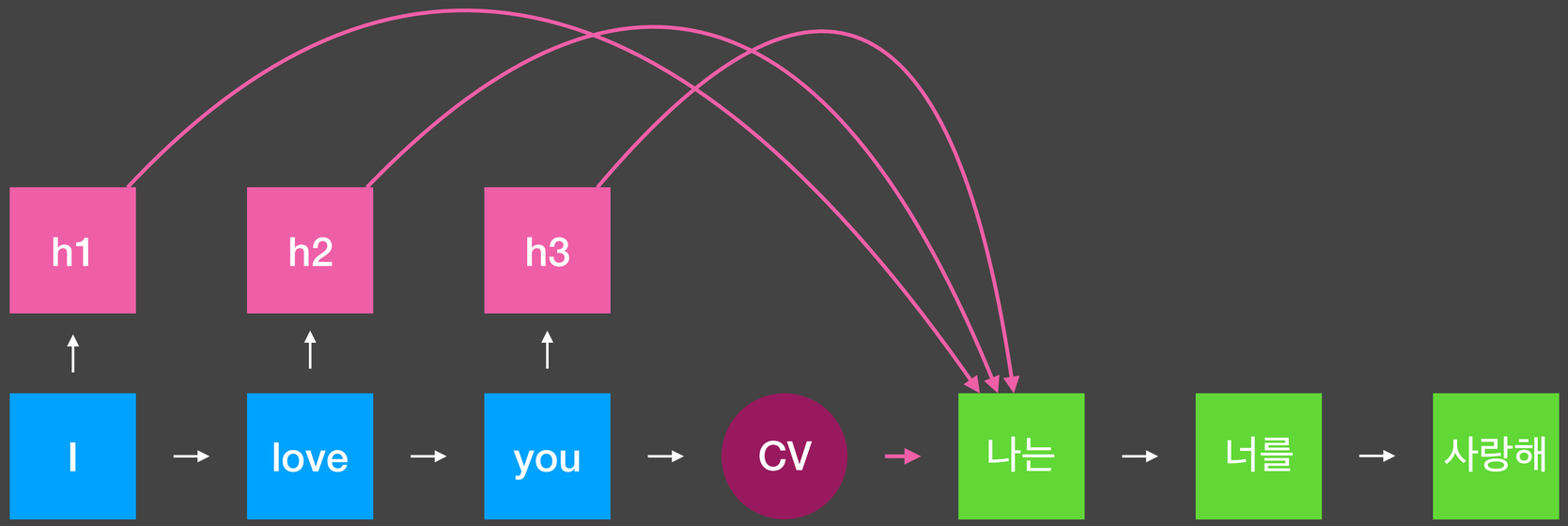
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



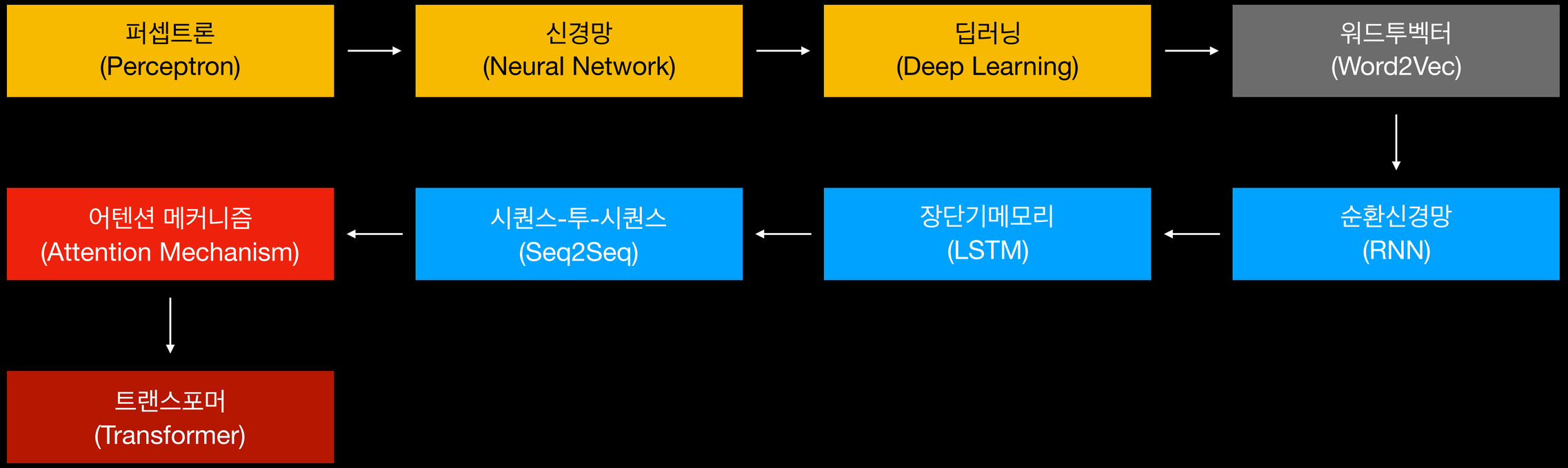
퍼셉트론 to XLNet 로드맵



RNN 방식의 한계! 학습속도!!

학습 속도를 개선할 방법이 없을까?

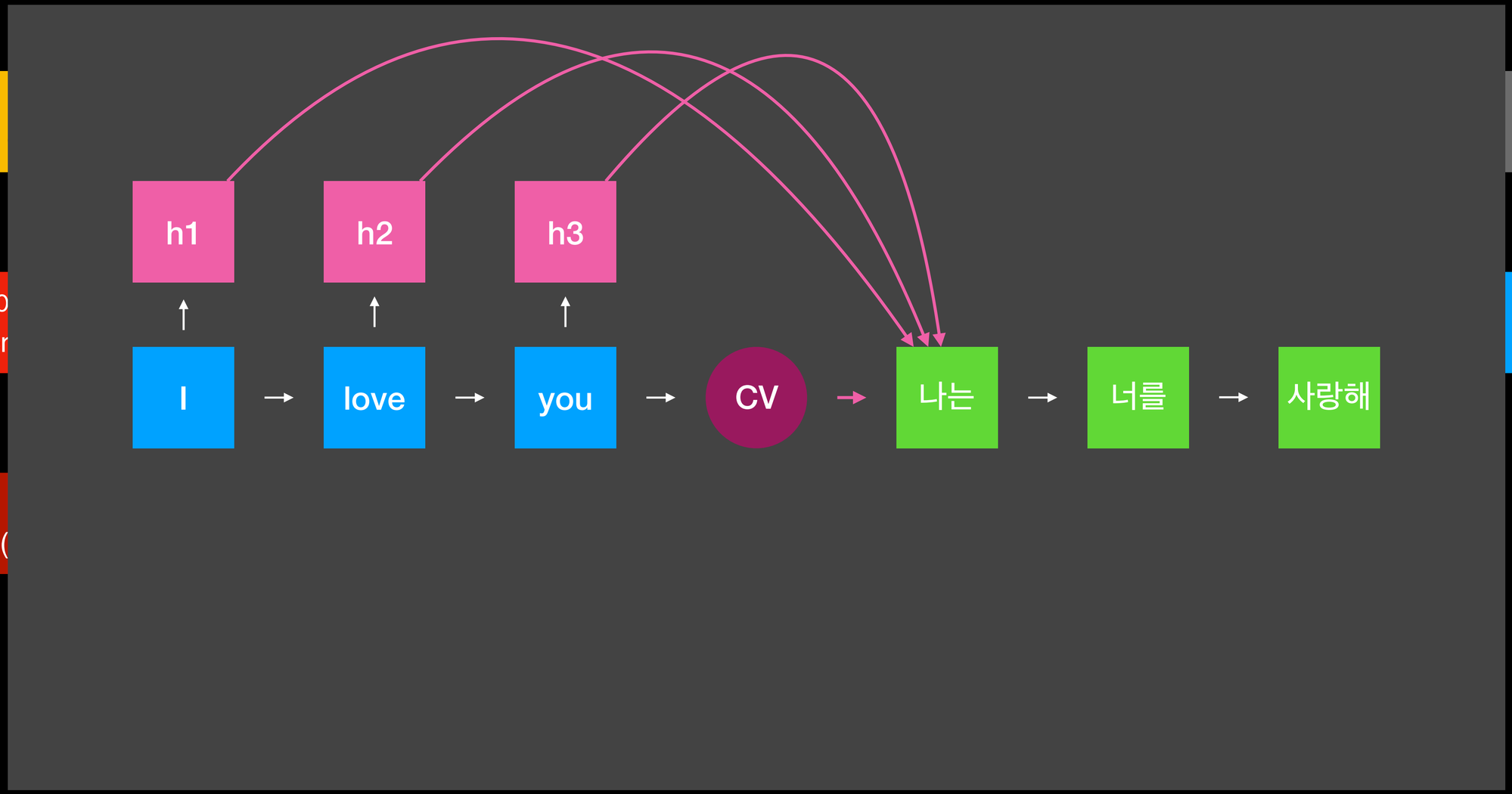
퍼셉트론 to XLNet 로드맵



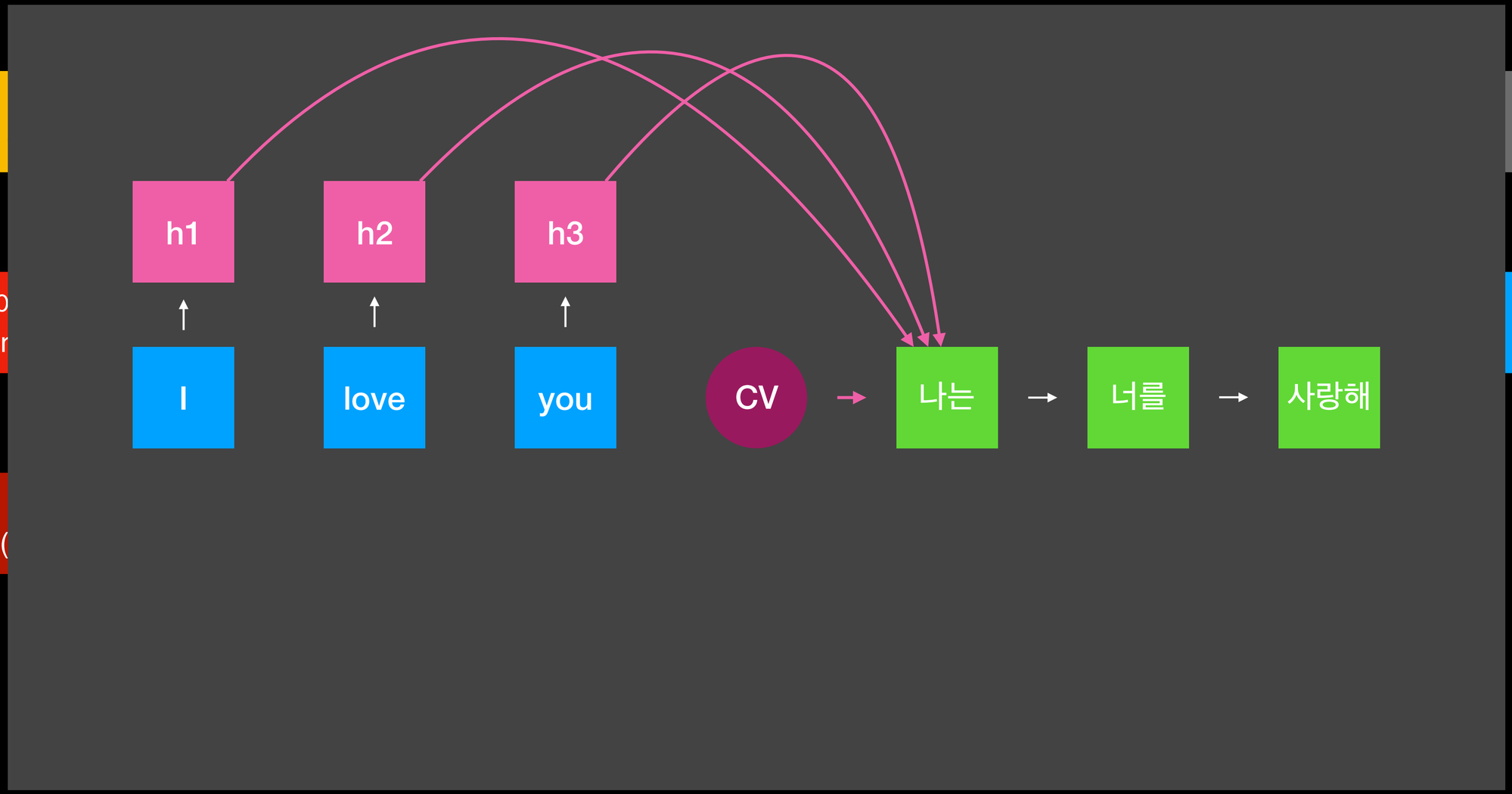
퍼셉트론 to XLNet 로드맵

병렬처리(Parallization)

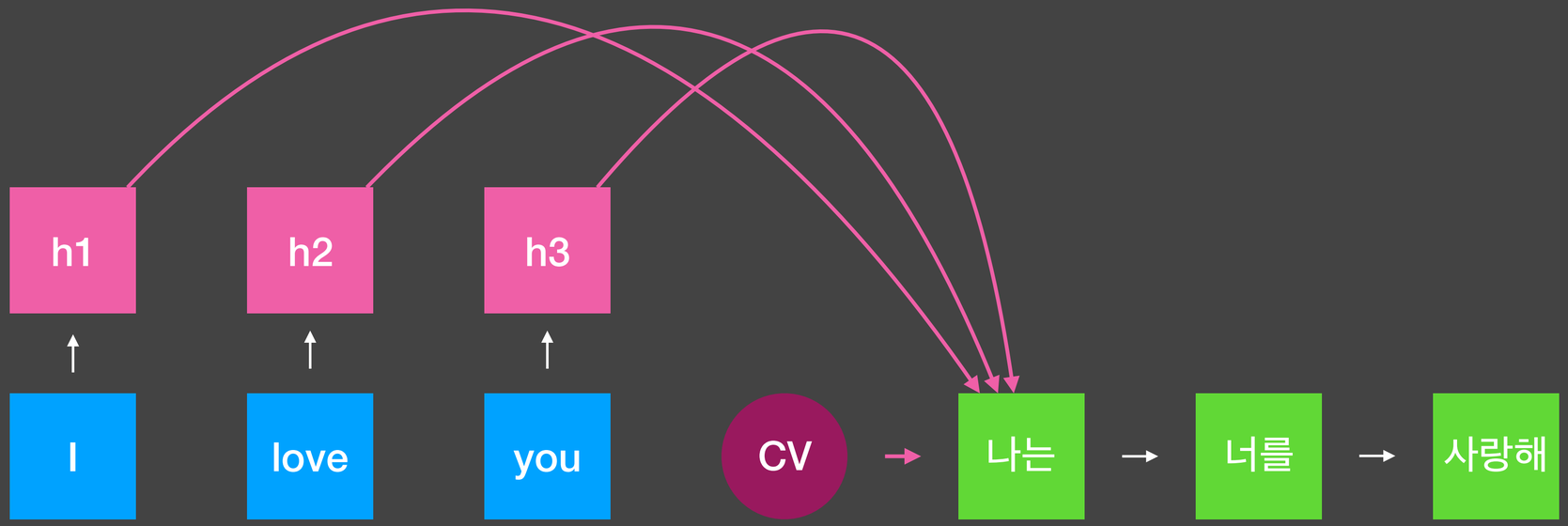
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



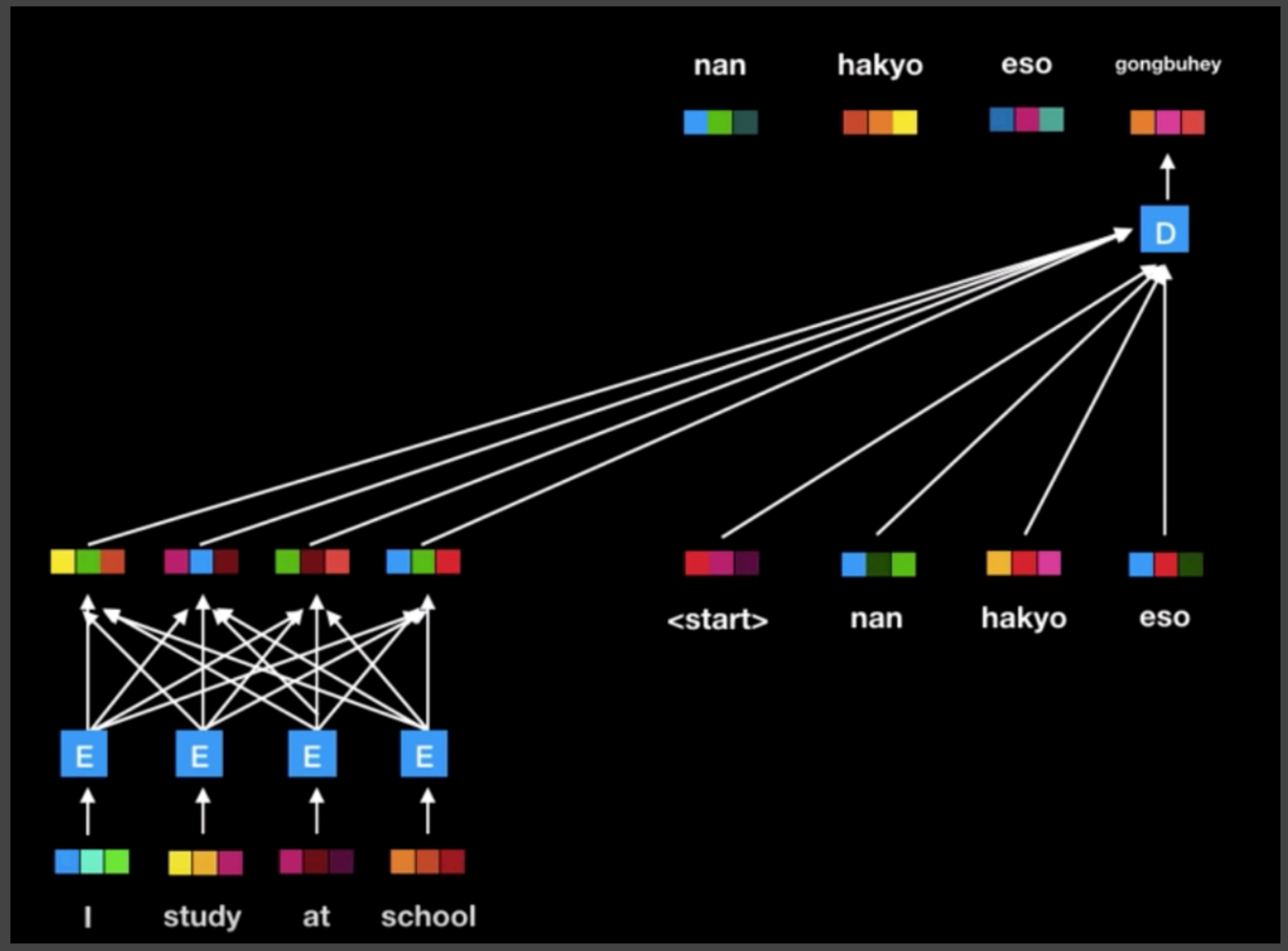
퍼셉트론 to XLNet 로드맵



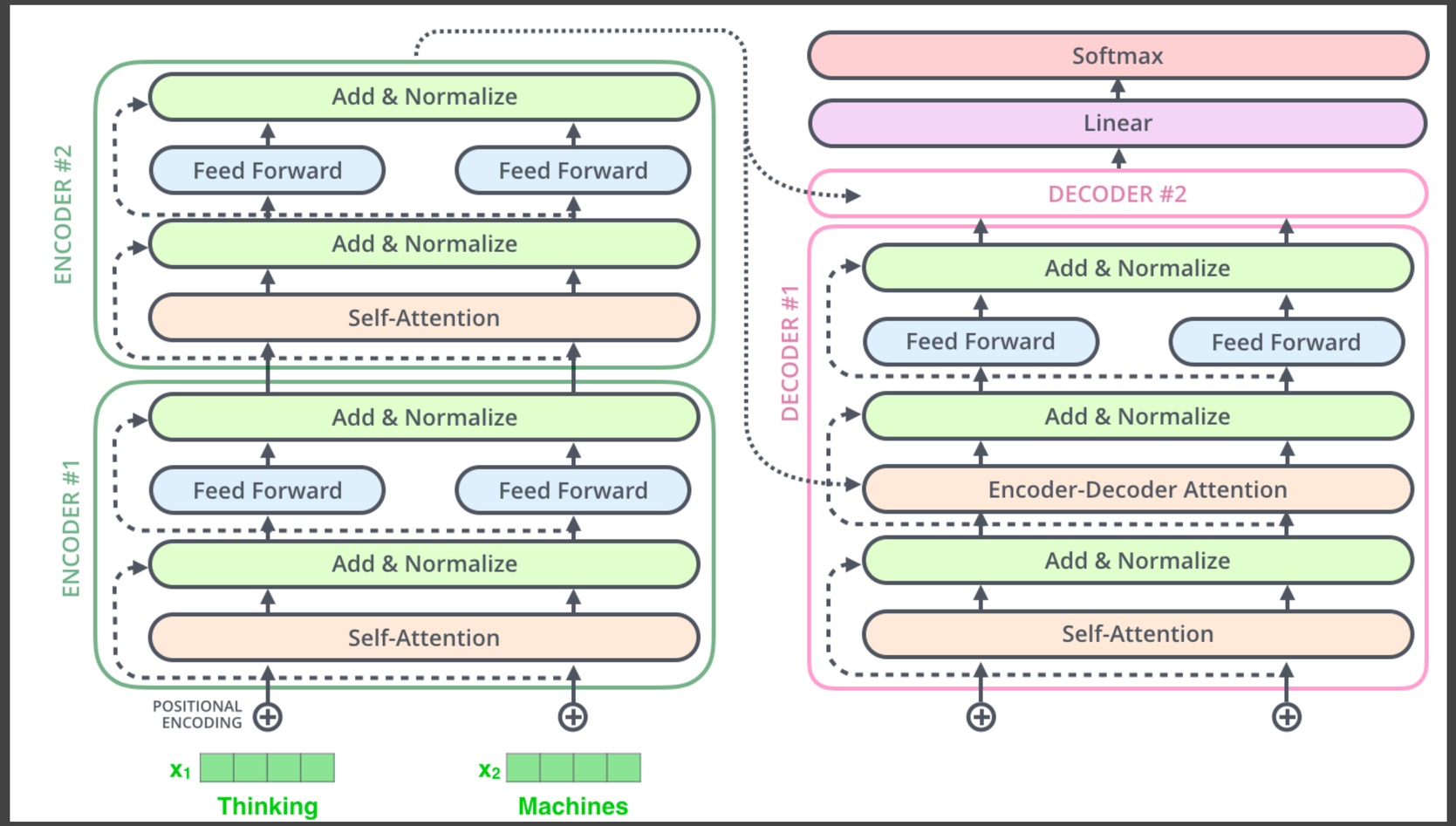
문장의 어순 정보는?

말의 어순 정보는 **Positional Encoding** 으로 해결!!

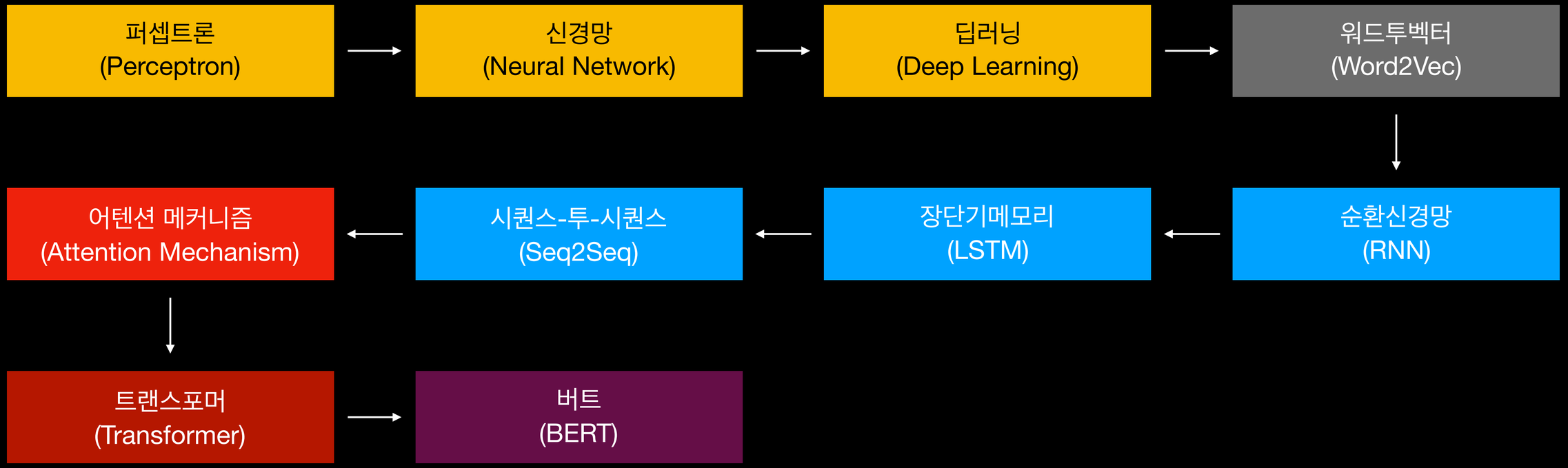
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵

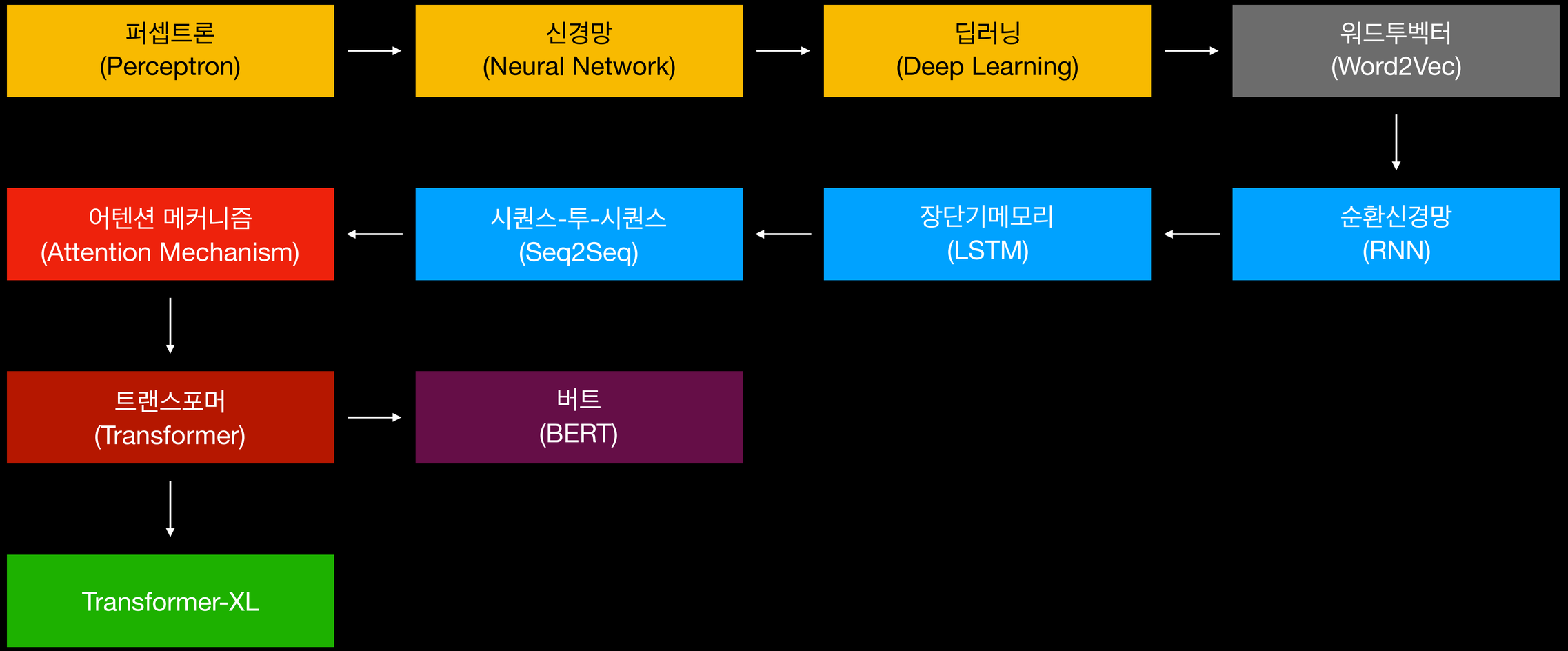


퍼셉트론 to XLNet 로드맵

Encoder 를 좀더 정교하게!!

Positional Encoding
Input Embeddings
Encoder Block
Multi-Head Attention
Scaled Dot-Product Attention
Masked Attention
Position-wise Feed-Forward Network

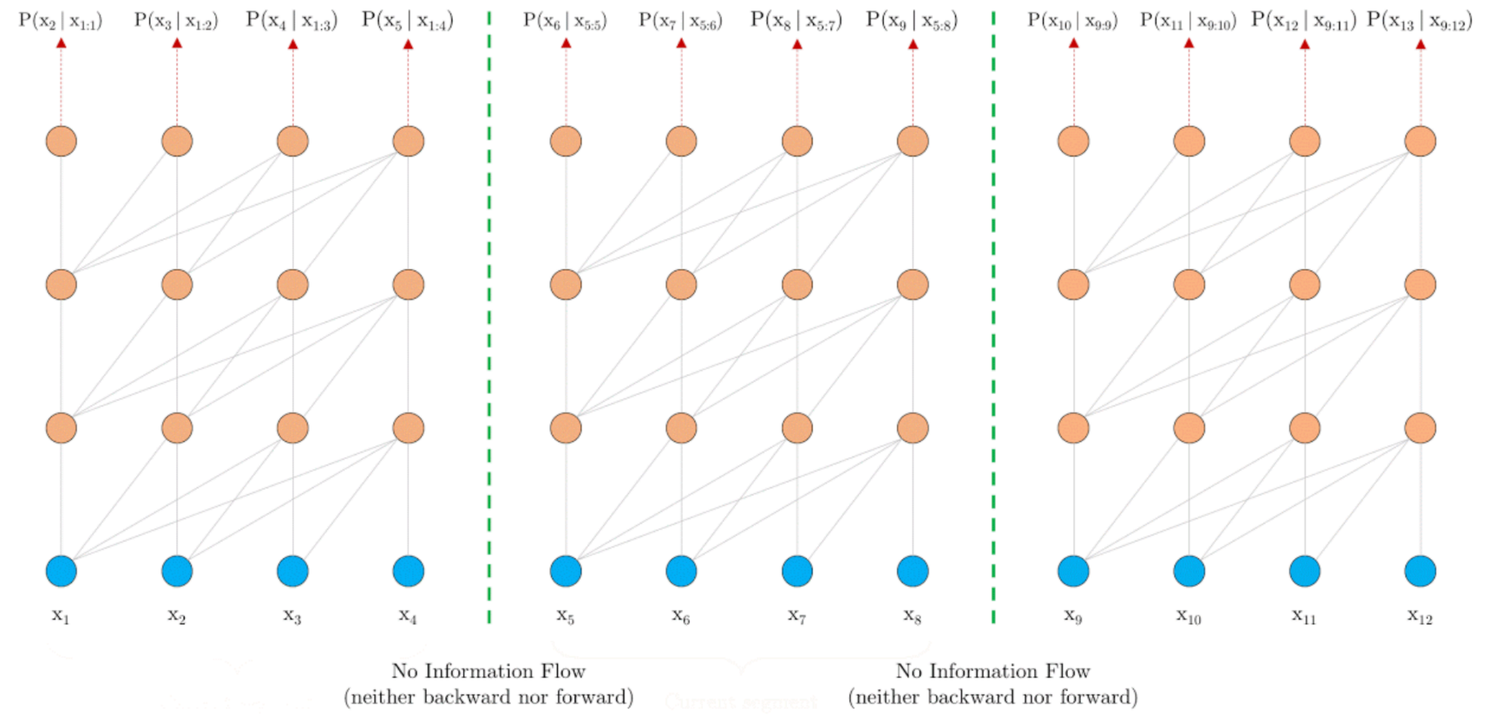
퍼셉트론 to XLNet 로드맵



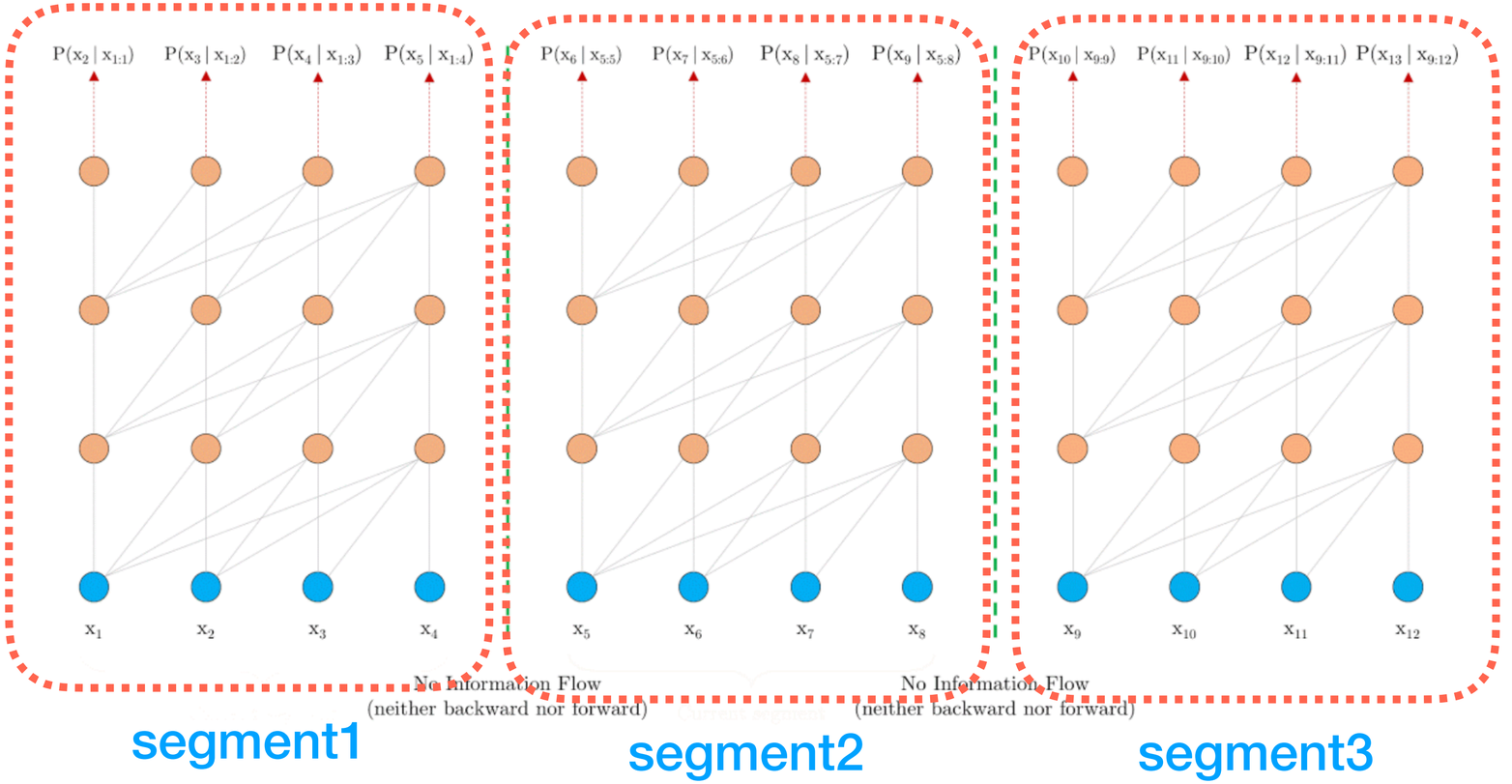
퍼셉트론 to XLNet 로드맵

Segment-level Recurrence?

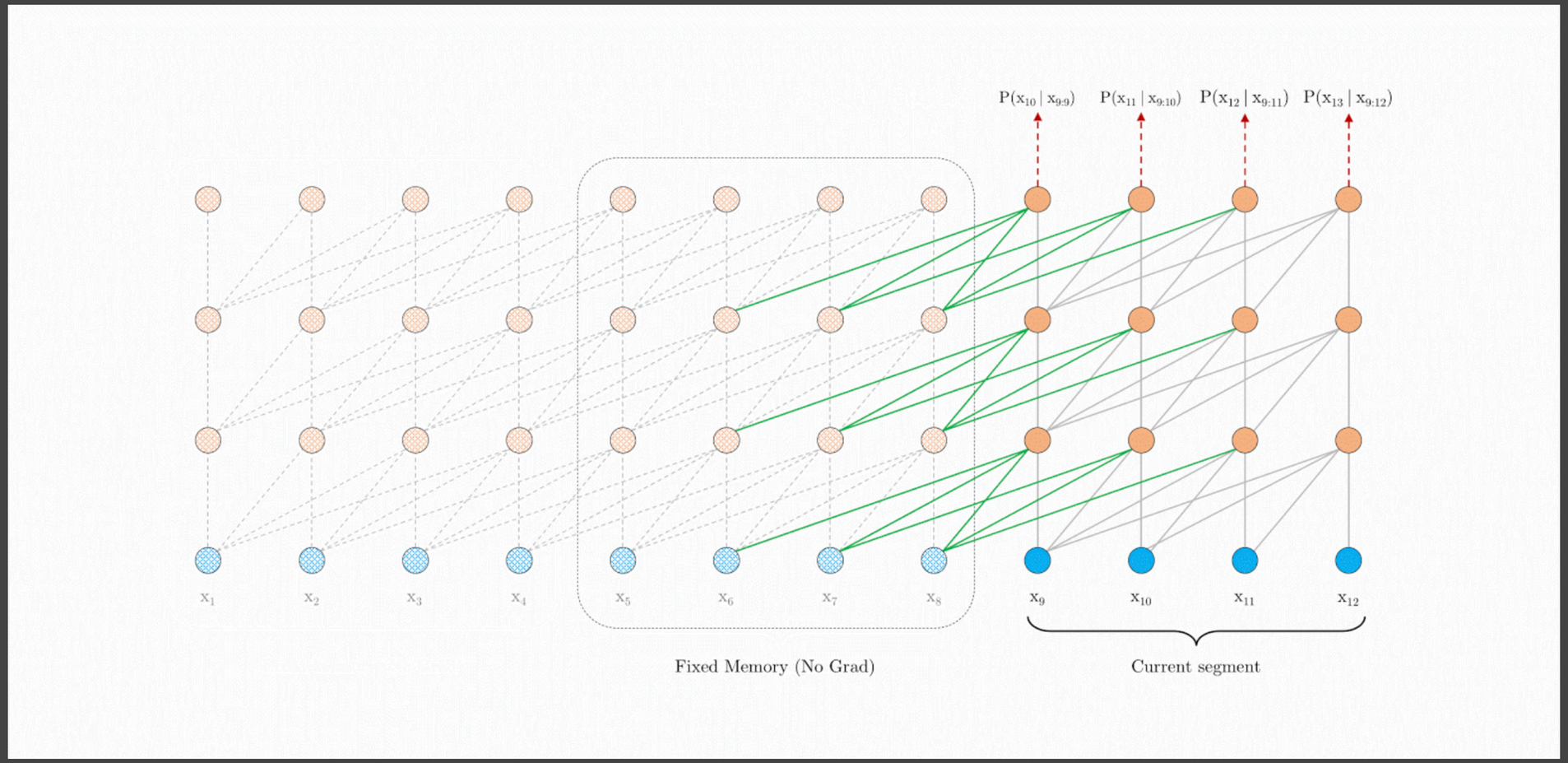
퍼셉트론 to XLNet 로드맵



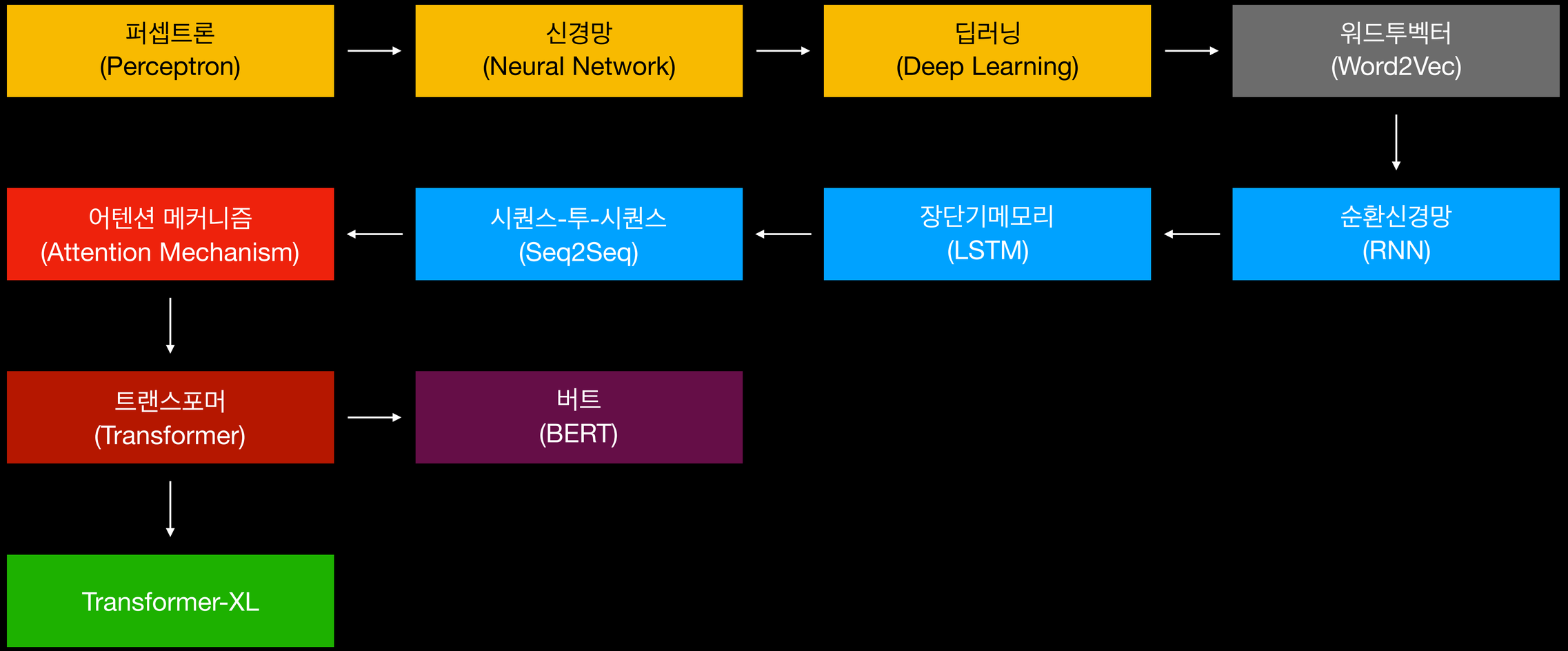
퍼셉트론 to XLNet 로드맵



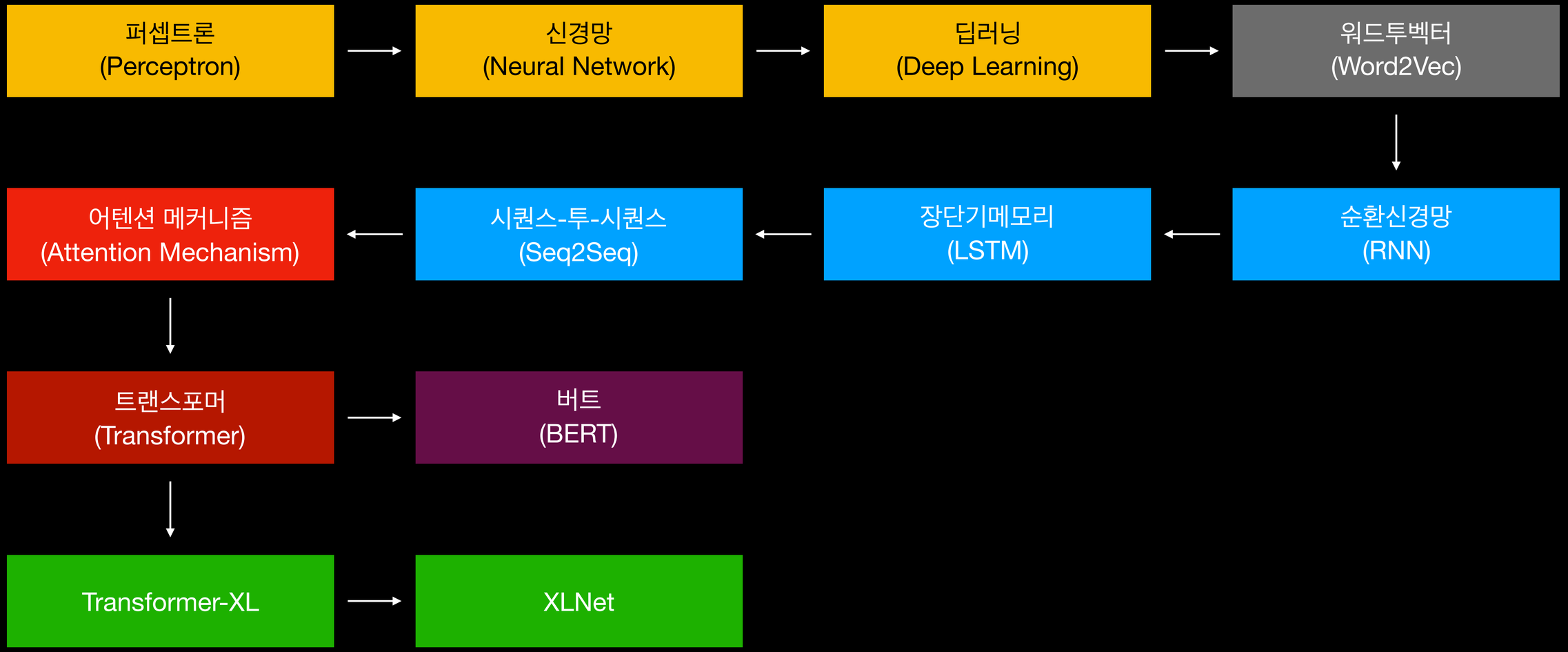
퍼셉트론 to XLNet 로드맵



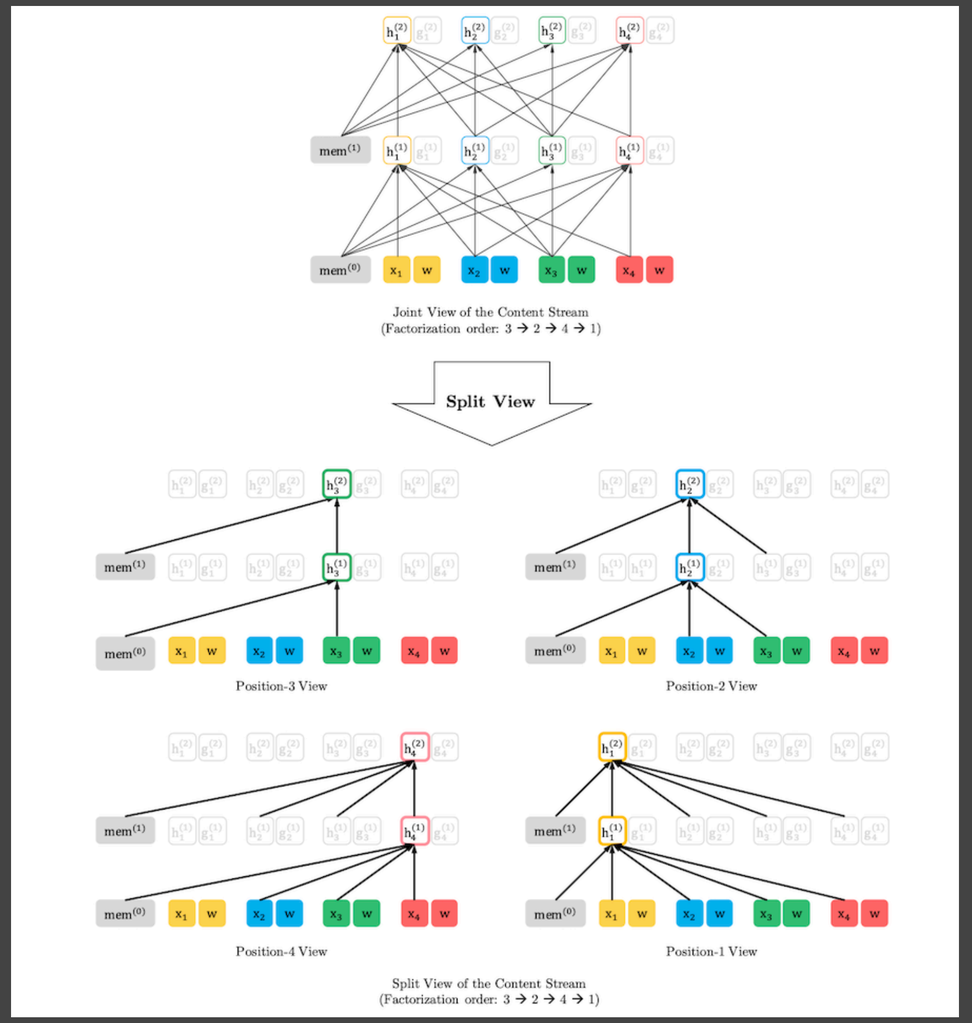
퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵



퍼셉트론 to XLNet 로드맵

퍼셉트론 to XLNet 로드맵

END

이강훈 한국인공지능연구소장