Pointer Network
Pointer Network

coordinate of $P_1$
Sequence-to-sequence?

Encoder

Decoder
Sequence-to-sequence?

Of course, one can add attention.
Pointer Network

Attention Weight

0.5

key $z^0$

END
Pointer Network

Output: 1

argmax from this distribution

What decoder can output depends on the input.
**Pointer Network**

Output: 4

argmax from this distribution

The process stops when "END" has the largest attention weights.

What decoder can output depends on the input.
Applications - Summarization

https://arxiv.org/abs/1704.04368
More Applications

**Machine Translation**

**French:** Guillaume et Cesar ont une voiture bleue à Lausanne.

**English:** Guillaume and Cesar have a blue car in Lausanne.

**Chat-bot**

User: X你好，我是庫洛洛

Machine: 庫洛洛你好，很高興認識你