# From Neural Machine Translation to Recurrent Neural Networks

Research Overview

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Computer Architecture Seminar, 2018/7/17



#### **Table of Contents**

- Neural Machine Translation
  - Model
    - Embedding
    - Encoder

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# NMT.Model.Embedding

Embedding layer encodes words into vector representations.

• Suppose that we have a corpus of |V| vocabularies, and our hidden dimension for the machine learning model is H, then the embedding weight dimension should be  $|V| \times H$ .

4/5

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- Ideally, after the training process, words that are semantically similar also have vector representations that are close to each other.

### NMT.Model.Encoder

#### **Encoder**



5/5