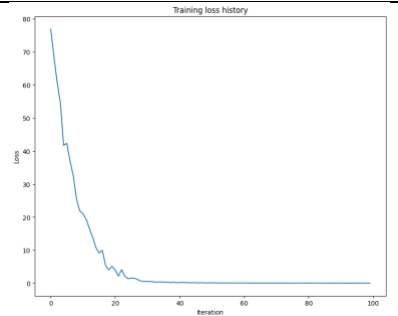
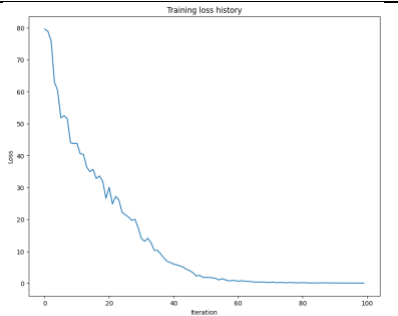
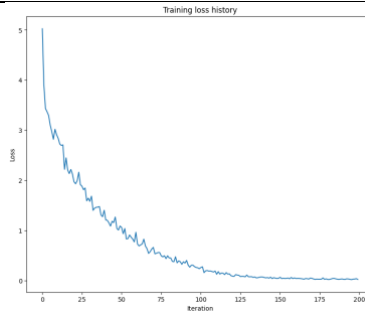









# Computer Vision Homework#3

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All codes are uploaded at [https://github.com/kdh-yu/ComputerVision/tree/main/HW\\_3](https://github.com/kdh-yu/ComputerVision/tree/main/HW_3)

## 1. Code implementation and inference

RNN	LSTM	Transformer
		
Final Loss 0.08207246780395508	Final Loss 0.08085013696488379	Final Loss 0.02125324
<p>val two of &lt;UNK&gt; woman of a while in sun &lt;UNK&gt; GT:&lt;START&gt; a red and white light tower on a hill near the ocean</p> 	<p>val half a &lt;UNK&gt; is &lt;UNK&gt; out on the ocean GT:&lt;START&gt; a bowl of chicken and vegetables is shown</p> 	<p>val a person the &lt;UNK&gt; &lt;UNK&gt; out of a game GT:&lt;START&gt; two men playing tennis outside during the day</p> 
<p>val to tracks with out of a GT:&lt;START&gt; a table filled with many assorted food items</p> 	<p>val an open refrigerator door and a man on a box of suitcases GT:&lt;START&gt; a salad and a sandwich &lt;UNK&gt; to be eaten at a restaurant</p> 	<p>val a and a man walking down the sidewalk with a bags field GT:&lt;START&gt; two signs are displayed on a street light</p> 
<p>val various &lt;UNK&gt; with &lt;UNK&gt; GT:&lt;START&gt; an elephant and baby elephant walk towards the water</p> 	<p>val a cute dog is a &lt;UNK&gt; with a box of drinking &lt;UNK&gt; GT:&lt;START&gt; two cats facing each other eating dinner from bowls inside</p> 	<p>val two is it &lt;UNK&gt; &lt;UNK&gt; in the on a &lt;UNK&gt; GT:&lt;START&gt; a tennis player prepares to hit a tennis ball during a match</p> 

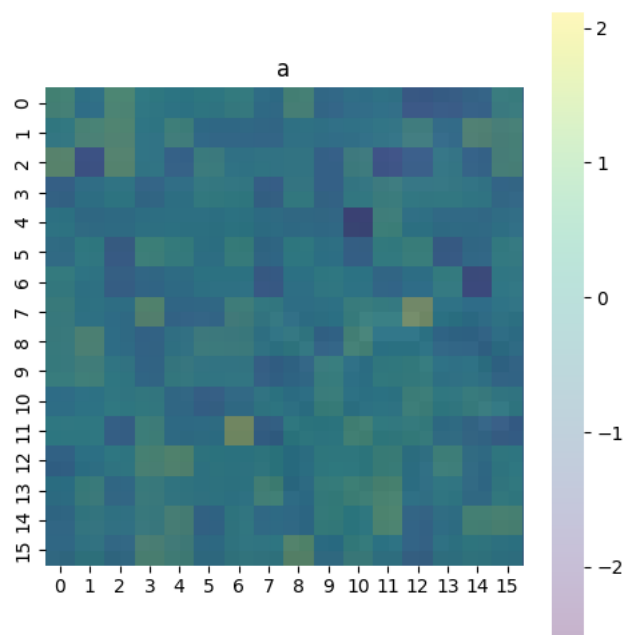
## 2. Implementation of evaluation metric (CIDEr score)

All scores are evaluated by models that are overfitted in small data, using valid data. Codes are implemented in "CIDEr.py"

RNN : CIDEr score on valid data : 9.33  
LSTM : CIDEr score on valid data : 8.85  
Transformer : CIDEr score on valid data : 11.17

## 3. Visualize the attention map.

---- couldn't



Tried to implement, but all attention maps were exactly same. I think attention scores are not returned correctly. If possible in future, I want to fix it and implement the whole process again.

## 4. NICE data:

19 2022-09-13 06:13:21 36.4 18.32 9.08 5 9.37 5.58

Submitted.