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# 1 RESULTS

## 1.1 Exp-1 (NHN baseline model)

### 1.1.1 Keys

* ☐ The benefit of data pre-processing by comparing validation and test loss.
* ☐ The selection of best model by comparing validation and test loss.
* ☐ Test data could be in poor quality.
* ☐ Show another test data results and compare the test and valid loss.

### 1.1.2 Fig and table

* Exp 1

* Table 1.1: Traning parameters in Exp-1.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| * Pre-processing methods | * Train date | * Valid date | * Test date | * Algorithms |
| * obs |  |  |  | * CNN |
| * sg5 |  |  |  | * DNN |
| * sg7 |  |  |  | * RNN |
| * sg9 | * 12/13/2021—1/9/2022 | * 1/10—l1/15/2022 | * 1/16—1/22/2022 | * GRU |
| * ew2 |  |  |  | * LSTM |
| * ew3 |  |  |  |  |
| * ew4 |  |  |  |  |
| * or |  |  |  |  |

* result 1  
  After sorting the test loss from the lowest to the highest, we observed that the test loss from lowest doesn’t match with the valid loss from lowest.

|  |  |  |
| --- | --- | --- |
| Fruit | Price | Advantages |
| Bananas | $1.34 | * built-in wrapper * bright color |
| Oranges | $2.10 | * cures scurvy * tasty |

Table 1.2: Test

|  |  |  |  |
| --- | --- | --- | --- |
| Centered Header | Default Aligned | Right Aligned | Left Aligned |
| First | row | 12.0 | Example of a row that spans multiple lines. |
| Second | row | 5.0 | Here’s another one. Note the blank line between rows. |

Table 1.3: Test and valid loss of NHN in Exp-1.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Model-dataset | 0116-0122 test\_loss\_mean | 0110-0115 valid\_loss\_mea | n Model-dataset | 0116-0122 test\_loss\_mea | 0110-0115 n valid\_loss\_mean |
| GRU-sg7 GRU-sg5 GRU-ew2 GRU-ew4 GRU-ew3 GRU-sg9 GRU-or GRU-obs | 0.0383 0.0385 0.0389 0.0391 0.0392 0.0396 0.0405 0.0414 | 1.2508 1.2644 1.1891 1.2390 1.2199 1.3097 1.3993 1.3638 | LSTM-ew3 LSTM-sg7 LSTM-sg5 LSTM-ew2 LSTM-ew4 LSTM-or LSTM-obs LSTM-sg9 | 0.0388 0.0388 0.0388 0.0392 0.0395 0.0398 0.0405 0.0410 | 1.0796 1.1804 1.2346 1.0969 1.1219 1.2612 1.2366 1.3076 |

Table 1.4: Valid and test loss from 1/16 to 1/22.

|  |  |  |  |
| --- | --- | --- | --- |
| Model-dataset | Validation Loss | Model-dataset | Test loss |
| LSTM-ew3 | 1.0796 | **GRU-sg7** | 0.0383 |
| LSTM-ew2 | 1.0969 | GRU-sg5 | 0.0385 |
| LSTM-ew4 | 1.1219 | **LSTM-ew3** | 0.0388 |
| LSTM-sg7 | 1.1804 | **LSTM-sg7** | 0.0388 |
| GRU-ew2 | 1.1891 | **LSTM-sg5** | 0.0388 |
| GRU-ew3 | 1.2199 | **GRU-ew2** | 0.0389 |
| LSTM-sg5 | 1.2346 | **GRU-ew4** | 0.0391 |
| LSTM-obs | 1.2366 | **LSTM-ew2** | 0.0392 |
| GRU-ew4 | 1.239 | **GRU-ew3** | 0.0392 |
| GRU-sg7 | 1.2508 | **LSTM-ew4** | 0.0395 |

Table 1.5: Valid and test loss from 1/16 to 1/22.

|  |  |  |  |
| --- | --- | --- | --- |
| Model-dataset | Validation Loss | Model-dataset | Test loss |
| LSTM-ew3 | 1.0796 | **LSTM-ew3** | 0.0158 |
| LSTM-ew2 | 1.0969 | **LSTM-ew2** | 0.0161 |
| LSTM-ew4 | 1.1219 | **LSTM-ew4** | 0.0163 |
| LSTM-sg7 | 1.1804 | **LSTM-sg5** | 0.0166 |
| GRU-ew2 | 1.1891 | **GRU-ew3** | 0.0167 |
| GRU-ew3 | 1.2199 | **GRU-ew4** | 0.0169 |
| LSTM-sg5 | 1.2346 | **GRU-ew2** | 0.0170 |
| LSTM-obs | 1.2366 | GRU-sg9 | 0.0174 |
| GRU-ew4 | 1.239 | **LSTM-obs** | 0.0175 |
| GRU-sg7 | 1.2508 | LSTM-or | 0.0177 |

Table 1.6: Schematic for restriction digestion with a single restriction enzyme. Some really long text that shows how the caption is formatted when it takes multiple lines.

|  |  |
| --- | --- |
| Reagent | Amount |
| Appropriate Buffer (10x) | 1x |
| DNA | 50-500ng |
| Restriction Enzyme | 1*U* |
| Water | - |

## 1.2 Exp-2

## 1.3 Exp-5

## 1.4 Exp-6

# 2 Result

## 2.1 sdfas

Table 2.1: Validation and test loss comparison from 1/16 to 1/22.

|  |  |
| --- | --- |
| Model-dataset | Validation Loss |
| LSTM-ew3 | 1.0796 |
| LSTM-ew2 | 1.0969 |
| LSTM-ew4 | 1.1219 |

## 2.2 asdf

Table 2.2: Validation and test loss comparison from 1/16 to 1/22.

|  |  |  |  |
| --- | --- | --- | --- |
| Model-dataset | Validation Loss | Model-dataset | Test loss |
| LSTM-ew3 | 1.0796 | GRU-sg7 | 0.0383 |
| LSTM-ew2 | 1.0969 | GRU-sg5 | 0.0385 |
| LSTM-ew4 | 1.1219 | **LSTM-ew3** | 0.0388 |

Thanks, it works. But I have another problem now. My images are a little large, and when put in the same row they cannot fit into one slide. Is it possible to control the size of the image? Thanks, it works. But I have another problem now. My images are a little large, and when put in the same row they cannot fit into one slide. Is it possible to control the size of the image? Thanks, it works. But I have another problem now. My images are a little large, and when put in the same row they cannot fit into one slide. Is it possible to control the size of the image? Thanks, it works. But I have another problem now. My images are a little large, and when put in the same row they cannot fit into one slide. Is it possible to control the size of the image?

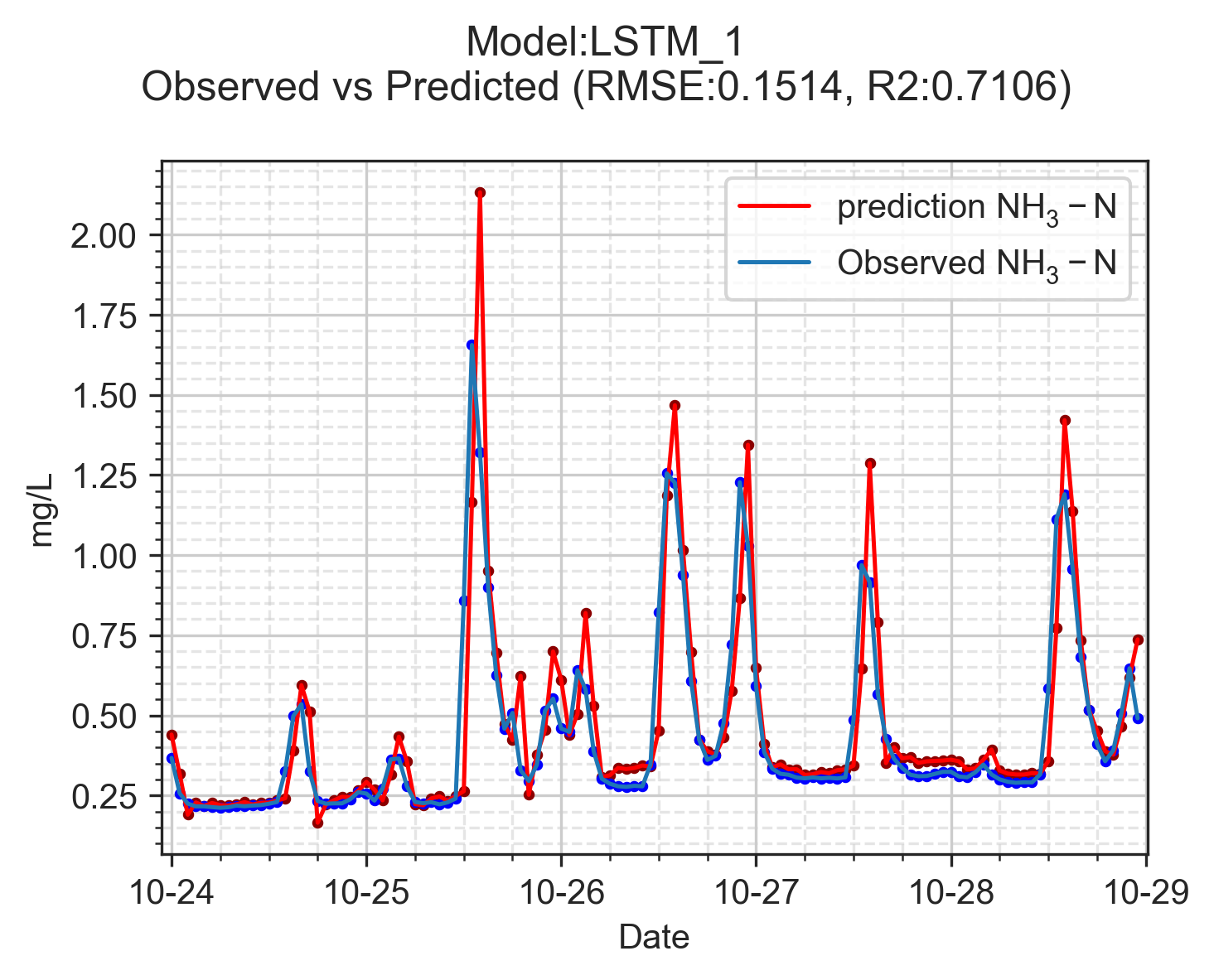


Figure 2.1: tesst

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