

# Homework Assignment 3

## Ai-Master Deep Learning Foundation Program

Instruction: Please read through chapter 12 of the deep learning ai-book (Project Three: Machine Learning ) and the code for the second project (<https://github.com/Ai-Master/deep-learning-foundation-program>). For this assignment, please finish the following tasks and upload the assignment to your personal Github repository, and submit the GitHub link to the instructor.

### 1. Run Codes in the Jupyter Notebook

Just like what you have done for project one, first you should download the jupyter notebook for this project from github, unzip it and use terminal to open it.

We expect you to read through the whole Jupyter notebook, run codes and understand codes.

### 2. Write Your Own Code

Please create a new Jupyter notebook and write the script that uses Recurrent Neural Network to generate text. You can use the same code we provided or use other ways to preprocess data, as long as the code does not produce errors or have a terribly low accuracy. For the model, **you are required to make following change in your code:**

- 1. Use LSTM or GRU instead of RNN**
- 2. Tune hyperparameters (number of units, activation, etc.)**
- 3. (Optional) Use early stopping**
- 4. (Optional) Use a new dataset**

For more information about Recurrent Layers and Arguments in Keras, please go to <https://keras.io/layers/recurrent/>. If you have any questions, you can ask TAs or the instructor during the live session. Remember that the goal is to get higher validation and testing accuracy.

After you finish coding, please upload the notebook to your GitHub repo.



