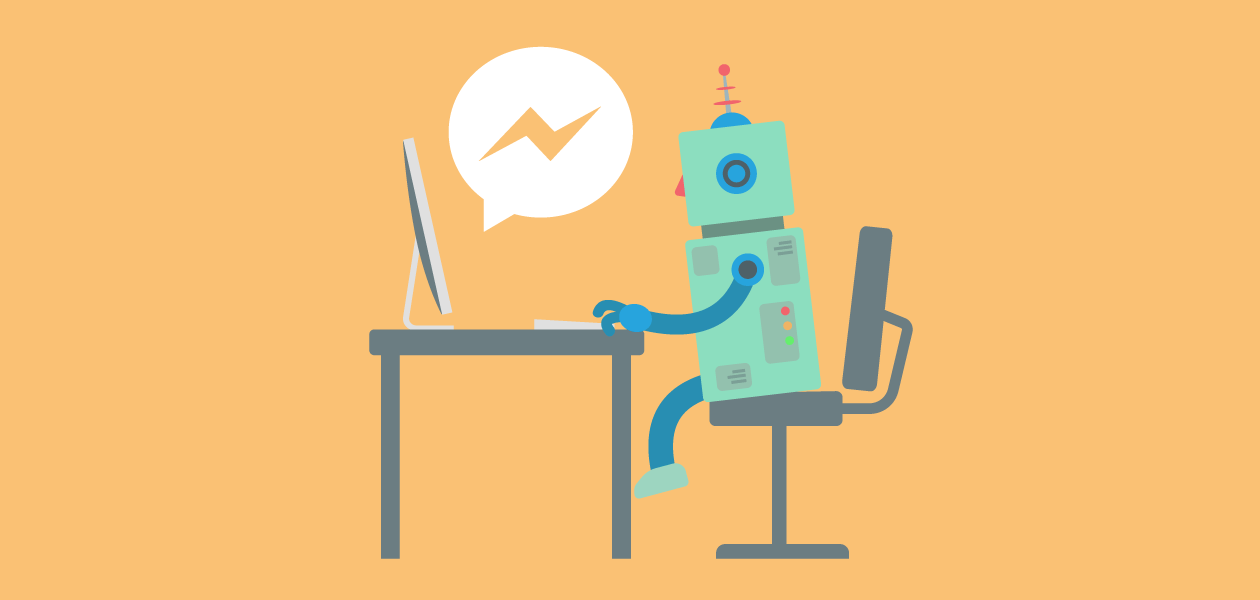
IVRS NLP For Contract Filling Using Recurrent Training

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****1 Introduction

*Objective*

The objective is to build a Robust and Intelligent NLP Recommendation Engine using Recurrent training for word entity tagging in Commodities and subsequent form filling.

2 Method and Libraries used:

We have used Stanford NLP Tagger a pre-trained model to train our model. Sandford NLP is treated as state of the art in understanding text pattern. Business level sentences are formed which are to be used in different business cases, Word tagging was done, and text cleaning was done changed the format to the library understandable format. Model training was done by tuning the hyper parameters and minimizing the Error. Re-current (Auto) training is created every time a mis classification is encountered.

**NOTE: Download the Stanford-ner JAR File. Open Its meta file and change the main-class to** edu.stanford.nlp.ie.crf.CRFClassifier.(**Important**)

# 3. Pre-Requirements:

1. Needs to be saved in file system

2. Environment Variable for the root-Path to be set Prior config and the URL for authentication to be set.

3. After the code runs after initialization object file, Property file is generated automatically.

# 4. Output and API’s Provided:

There are 6 APIS which I have created.

1. Sranford\_API: This API gives the output **http://192.168.1.225:3131/nlp/processSentence?sentence=**
2. Recurrent\_training: This API is called after Saving the payload

http:// **192.168.1.225**:3131/nlp/tags

1. Blank\_training: This API to be called when we feel that the whole training set is filled with garbage. http:// **192.168.1.225**:3131/nlp/reset
2. Raw Training: This API can be used for bulk training interms of text separated values(Not in USE) http:// **192.168.1.225**:3131/raw
3. Bulk training: Bulk training API can be used when we want to bulk train the model at one time. http:// **192.168.1.225**:3131/nlp/bulk\_tags
4. Initial training: Initial training is to be used for the first time when the app is deployed in any server. we need to update the pre\_load.txt file according t the appid and object id.

http:// **192.168.1.225**:3131/nlp/initial\_training

**NOTE: The Format in which data to be fed**

|  |  |
| --- | --- |
| API Input | [ {sentence:"Buy gasoil from Bangalore", json: {"type" : "buy", "product" : gasoil", location: "Bangalore"} }, {sentence:"Buy gasoil from Bangalore", json: {"type" : "buy", "product" : gasoil", location: "Bangalore"} } ] |

**PROJECT PIPELINE:  
Note:**

1. Attribute value mapping
2. use docker volume to store the created models ( via a property = location on docker volume)