

# User guide for Steel coatings pipeline

## DIRECTORY STRUCTURE

steel\_coatings\_pipeline  
    search\_annotation\_tool  
    prepare\_dataset  
    machine\_learning\_models

## SEARCH\_ANNOTATION\_TOOL

Consists the query tool, for further instructions look up the user guide inside this folder.

## PREPARE\_DATASET

### Folders

*Steel\_coatings\_text*: The original dataset

*Section\_wise\_text*: contains the research text divided section wise.

*ip\_to\_tagger*: Dataset with the text from the 'experiment' section extracted out.

*sentence\_ip\_to\_tagger*: Dataset with extra newlines from text

*sentence\_wise\_normalised\_ip\_to\_tagger*: Dataset with normalized sentences.

*consolidate*: contains files and code to extract AMCPW structures.

*ip\_to\_doccano*: input to doccano

*ip\_to\_docaano\_concatenated*: contains files where all the sentences are concatenated into one dictionary

*ip\_to\_docaano\_concatenated\_clean*: cleaned dataset

*op\_doccano*: output from doccano

*chemicaltagger-chemicalTagger-1.5.0*

### Code

*sentence\_ip\_to\_tagger.py*: removes newlines from the files in ip\_to\_tagger folder.

*sentence\_normalise*: normalizes sentences from files in sentence\_ip\_to\_tagger

*ip\_to\_doccano*: creates dataset suitable for performing annotation on doccano.

*clean\_json*: cleans the json files in ip\_to\_doccano\_concatenated.

### Workflow

- 1) run sentence\_ip\_to\_tagger.py
- 2) run sentence\_normalise
- 3) run ip\_to\_doccano
- 4) run clean\_json

## MACHINE LEARNING MODELS

Consists of code for the various approaches tried for NER

*Demo*: contains demo code to test the models. Just run the .py files.