

# Intelligent Systems

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October 25, 2022

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## 1 API

- EC/RN numbers: ingredient / reagent identifiers can be mapped by fda to names and synonyms
- major topic: pharmacology
- hm: "Humans", ...
- rn: "R2o4d3049 (Aspirin)", ... synonyms by fda

### 1.1 preprocessing

- remove most common words? except useful ones ("not")

## 2 classifying data

### 2.1 is word a medication

basis: list of classified

### 2.1.1 context

- find word  $W$
- count neighboring words  $w_i$
- (weighted  $\delta(d)$  by distance  $d$ ?)
- into context  $C$ ; see Equation 1
- ! normalize
- -> classify and test on medication and non-medication

$$C_W(w_i) = \sum_{\text{each } w_i \text{ near } W} \delta(d) \quad (1)$$

### 2.1.2 markov?

### 2.1.3 mapping words to vectors

- might easily lead to overfitting
- NN or list?

## 2.2 todo

- fda-api
- paper filtern -> limits

## 3 target application

map disease string (name or name matching, subwortsuche)

- to drug list in order of applicability e.g. link strength/text positivity
- and link to source text (by paper id and position on text as percent float)