

# C2\_W3\_Assignment

October 31, 2020

## 1 Language Models: Auto-Complete

In this assignment, you will build an auto-complete system. Auto-complete system is something you may see every day - When you google something, you often have suggestions to help you complete your search. - When you are writing an email, you get suggestions telling you possible endings to your sentence.

By the end of this assignment, you will develop a prototype of such a system.

### 1.1 Outline

- Section ??
- Section ??
- Section ??
  - Section ??
  - Section ??
  - Section ??
  - Section ??
  - Section ??
  - Section ??
  - Section ??
- Section ??
  - Section ??
  - Section ??
- Section ??
  - Section ??
- Section ??
  - Section ??

A key building block for an auto-complete system is a language model. A language model assigns the probability to a sequence of words, in a way that more “likely” sequences receive higher scores. For example, >“I have a pen” is expected to have a higher probability than >“I am a pen” since the first one seems to be a more natural sentence in the real world.