# ASSIGNMENT 1: EXPLORING WORD EMBEDDINGS

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#### 1 Introduction

**Assignment 1** is structured into three main tasks, aimed at deepening your practical understanding of word embeddings:

- Task 1: Train Word Embeddings with Word2Vec (5 points)
- Task 2: Explore Word Embeddings (3 points)
- Task 3: Utilize Word Embeddings(2 points)

In **Task 1**, you will engage in the hands-on implementation and training of Word2Vec models to generate word embeddings. **Task 2-3** will guide you on how to use word embeddings effectively.

## 2 ASSIGNMENT REQUIREMENTS

This assignment equires using a Google Colab notebook provided at the following link:

https://colab.research.google.com/drive/1sxPeegJ -aQNM-RO FutZ5WLZUdb0uu?usp=sharing

YOU ARE REQUIRED TO:

- 1. Make a copy of the provided Google Colab file. First, you need to make a copy of the provided file into your own Google Drive. To accomplish this, open the Colab file link, navigate to File → Save a copy in Drive.
- 2. **Execute the notebook to generate results.** You can click on "Connect to GPU" to apply for a free T4 GPU. Then, you can press the large play button to run a code cell.
- 3. **Complete the Necessary Parts.** Some sections of the code are incomplete and require your input, especially pay attention to the parts marked with [task]. These sections are critical for scoring the assignment.

For more detailed instructions, refer to Working with Google Colab.

### 3 SUBMISSION GUIDELINES

Follow these steps to submit your assignment:

- 1. Export the Notebook: Navigate to File  $\rightarrow$  Download .ipynb to download your notebook.
- 2. **Upload Your File:** Access the Blackboard system and upload your .ipynb file.

#### 4 DEADLINE

**Important:** The assignment must be submitted by 11:59 pm Feb 27th, 2025. Late submissions may be subject to penalties.

<sup>\*</sup>Benyou Wang is the instructor.