

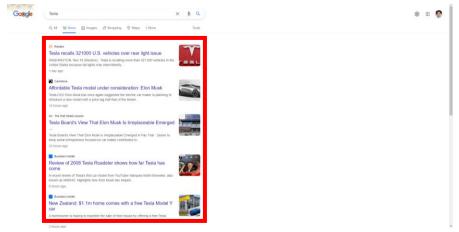
## Financial AI

## Homework 9

Due at 06:00 pm (Korea Standard Time) on Saturday, December 3 Submit one file: written solutions with executable Python code

Problem 1. Compare the news titles of two stocks numerically.

- (a) Crawl the HTML document on the News page of Google site for TESLA. (https://www.marketwatch.com/investing/stock/tsla?mod=search\_symbol)
- (b) Extract only news titles from the recent news section and process the text.



- (c) Use word2vec to vectorize the text (dimension = 20) and dimensionally reduce the text vectorized using t-SNE (dimension = 2).
- (d) Visualize dimensionally reduced results with plots.
- (e) (Optional task) Do the same about Google and then compare.

## Problem 2. LeetCode and HackerRank

- (a) Solve and Submit LeetCode: 70. Climbing Stairs (https://leetcode.com/problems/climbing-stairs/)
- (a) Solve and Submit LeetCode: 94. Binary Tree Inorder Traversal (use DFS) (https://leetcode.com/problems/binary-tree-inorder-traversal/)
- (b) Solve and Submit HackerRank : Gena Playing Hanoi (<a href="https://www.hackerrank.com/challenges/gena/problem?h\_r=internal-search">https://www.hackerrank.com/challenges/gena/problem?h\_r=internal-search</a>)