Homework 3

SGNS in Computation Graphs

- Learning goals:

  - Deepen understanding / familiarity with computation graphs

  - Develop understanding of back propagation

  - Implement several operations in forward/backward API

Written: Computation Graphs

- With a simple example:

  - Draw graph

  - Run forward pass and backpropagation by hand

  - Get used to upstream/local/downstream terminology

Implementation: SGNS in edugrad

- Implementing Skip-gram with Negative Sampling in <u>edugrad</u>, a minimal / bare-bones implementation of the PyTorch API

- Components: sigmoid, log, element-wise multiplication, dot products

  - As operations, with forward/backward API

  - See slides on website for more on edugrad