

Worksheet #1

April 16th, 2020

Paper: Relational inductive biases, deep learning, and graph networks

1. What is the meaning of Inductive Bias? Be formal.
2. Given that you understood the meaning of inductive bias, what is the meaning of **Relational** Inductive Bias?
3. Visit the Google Knowledge Graph API web page. Do you think that the API can be used to **learn** new knowledge? In other words, only using that API could you **predict new links** in the graph? If so, give an example.
4. Visit the DeepMind Graph Nets web page. Go through the example to find paths in the graph. How do you think the algorithm works? This library is built on top of Tensorflow. What kind of representation is used for the input graphs? How do you think the shortest paths are represented in order that the network can use them as ground truth for training?