Natural Language

Practical Classes

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P11

Fine-tuning

Image generated by ChatGPT

- **Summary**:

    – Fine-tuning a pre-trained model

- **Operational objectives**:

    – Hands-on experience with a fine-tuning process

- **This class needs**: a computer

- **Class material**: these guidelines and a jupyter notebook

Let us bring Sam some joy (or not)...

Although the thrill of saving the universe has sunk deep into you, you're very tired after the last adventure. You've always been a computer scientist: nothing like programming to relax. You deserve it.

Without overthinking, you decide it's time to give Sam a bit of joy: what if you could improve the results on the cast dataset?

You remember some of the encountered limits of the feed-forward neural networks from an old lab, as well as the fine-tuning process you heard about in class. You wonder whether you can implement this process in your project.

With enthusiasm you open the notebook P11_fine_tune.ipynb and try to answer the following:

- If you increase the number of (fine-tuning) epochs to 10, 15, or 20, will it still improve?

- Would it be much faster if you freeze part of the weight updates?
  And would the results get much worse?

You check the best results. Should you send Sam an email reporting them?

☐ YES

☐ NO