

Influence in Machine Learning

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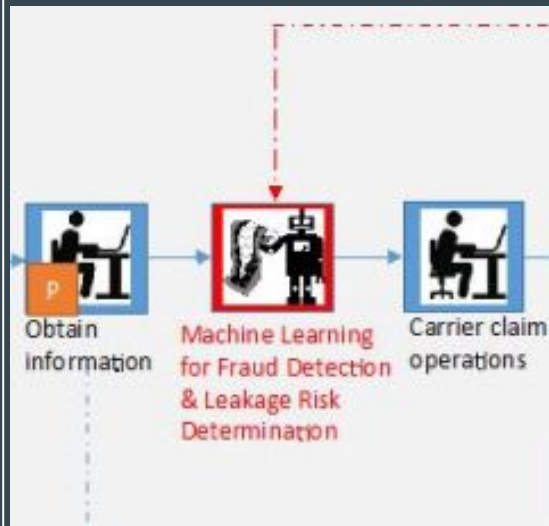
proposal

Existing Customers

Photos



Insurance



Events



ML Modeling Applications

Agriculture



Medicine





Imperfect models, bias, outliers



How
does that
thing do
what it
just did?

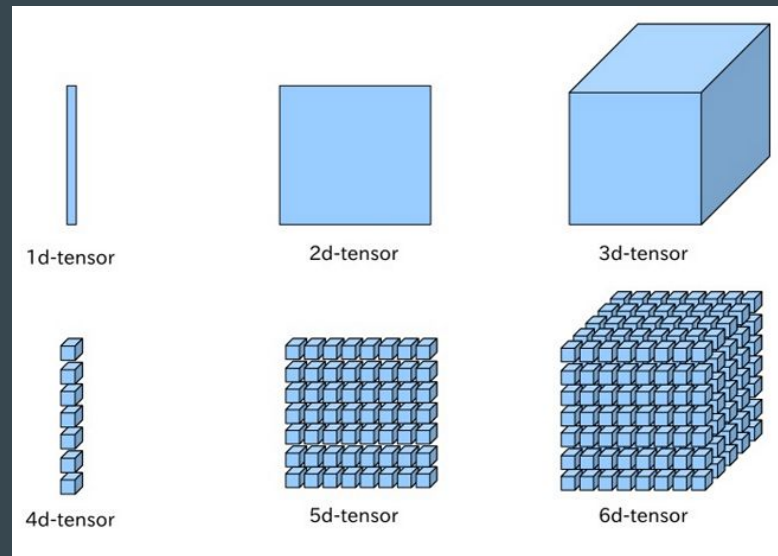
```
Averaging r-times: [=====]
Calc. influence function: [=====]
Calc. influence function: [=====]
Test samples processed: [=====]
2020-05-14 19:46:16,860: The results for this run are:
2020-05-14 19:46:16,861: Influences:
2020-05-14 19:46:16,862: [tensor(-0.0002, device='cuda:0')
0.0005, device='cuda:0')]
2020-05-14 19:46:16,889: Most harmful img IDs:
2020-05-14 19:46:16,890: [13234, 25872, 27722]
2020-05-14 19:46:16,892: Most helpful img IDs:
2020-05-14 19:46:16,893: [17276, 26286, 9673]
Accuracy of the network on the 10000 test images: 61 %
```

```
Accuracy of the network on the 10000 test images: 61 %
2020-05-14 19:46:16,860: [13234, 25872, 27722]
2020-05-14 19:46:16,861: [17276, 26286, 9673]
```

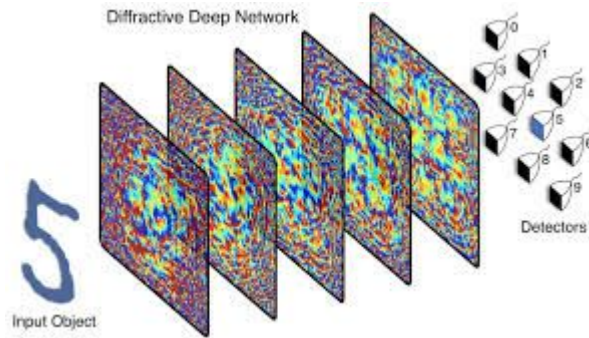
Computing Influence

...

 PyTorch



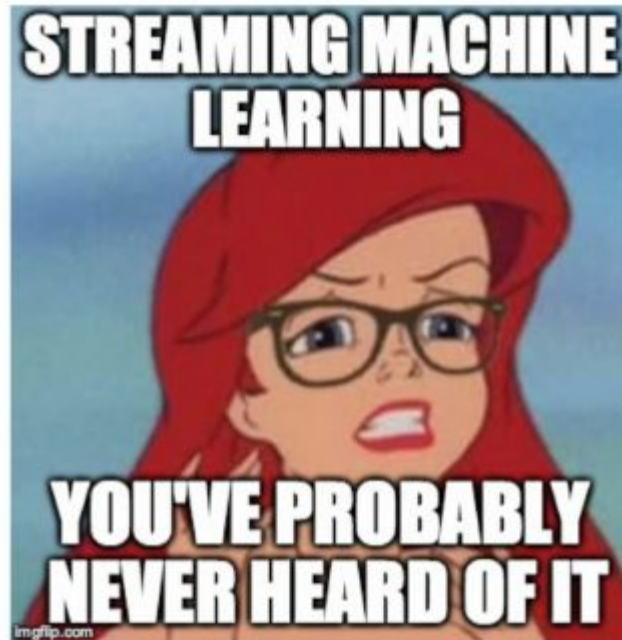
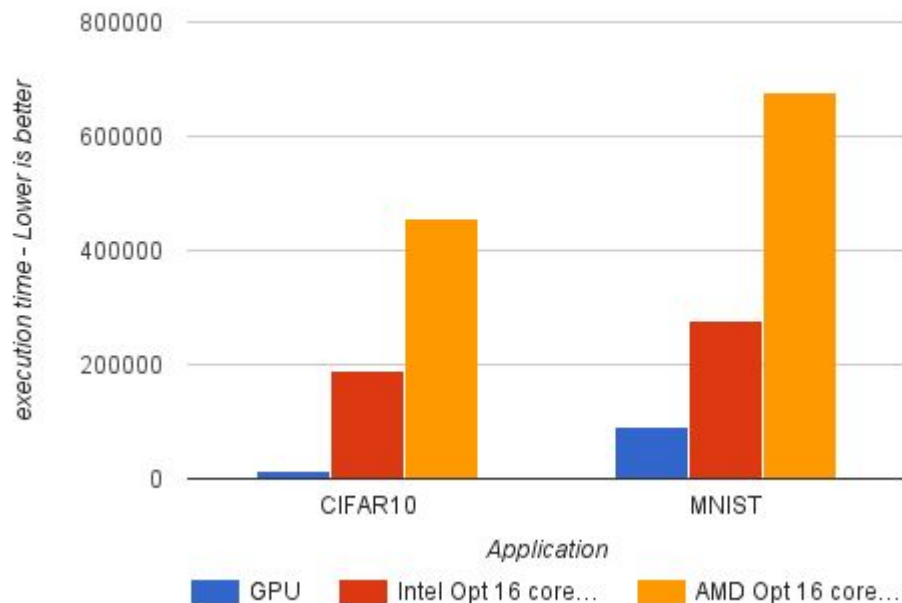
Using the advantages of
Tensor Processing

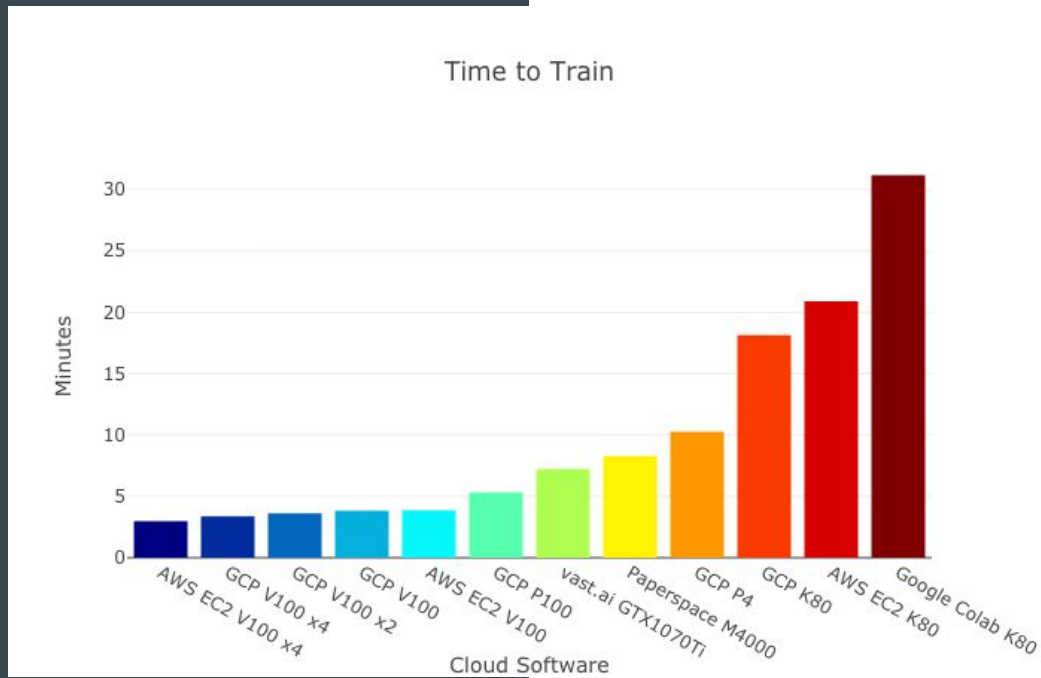


Harmful Image

Machine Learning Vision

Execution time - GPU vs CPU comparison





Online GPUs are

in - expensive

Proposed ...

PyTorch

- GPU
- Influence Functions

- Virtual Collaboration and Presentation

- Inexpensive Cloud Resources

- Ease the Route to End User Distribution



Thank You