131129.301 2977 27.05860990326578 0.0305 0.0307
131173.792 2978 27.051805288605614 0.0303 0.0297
131218.21 2979 27.055281491702193 0.0302 0.031
131262.62 2980 27.042746063167538 0.0301 0.0307
131306.95 2981 27.047667698690837 0.03 0.03
131351.26 2982 27.044890637429503 0.0312 0.0306
131395.62 2983 27.04937428217574 0.0306 0.03
131440.00 2984 27.02953340458087 0.0304 0.0303
131484.25 2985 27.066224279740208 0.0298 0.0299
131528.77 2986 27.0458703190473 0.0302 0.0293
131573.238 2987 27.038823049895218 0.0305 0.0302
131617.47 2988 27.056954942357788 0.0303 0.0296
131661.86 2989 27.03262982465121 0.0287 0.0298
131706.20 2990 27.022691164653565 0.0298 0.0301
131750.48 2991 27.038230920911133 0.0296 0.0298
131794.83 2992 27.065048913319455 0.0303 0.0302
131839.24 2993 27.049289813677387 0.0306 0.0305
131883.71 2994 27.038168365813572 0.0305 0.0
131928.01 2995 27.051252114398626 0.0
131972.633 2996 27.047539901
132016.89 2997 27.03
132061.21
13216

SEMI SUPERVISED LEARNING

We have reproduced the Semi Supervised Learning results from the paper, and we have gotten a pretty substantial improvement on the result of the paper.

From 3.33 ± 0.14 to 2.95 ± ??. There was no mention on how the Stdev was calculated, and there is no time to do a lot of runs. The Stdev will be updated once we have done more runs over the weekend.

This improvement can have various reasons and is something that we are discussing in our blog.

BETTER COMPATIBILITY

With Python 3 becoming the new standard we decided that it would be best to port the existing code to this newer version.

Bringing with it a bunch of benefits:

- Improved Legibility
- Better support in the future

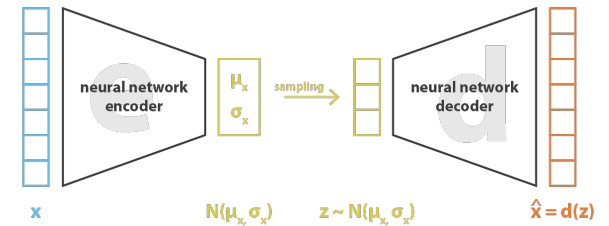With this we will also try to improve:

- Overall Code Quality

$$loss = \| x - \hat{x} \|^2 + KL[\, N(\mu_x, \sigma_x), N(0, I)\,] = \| x - d(z) \|^2 + KL[\, N(\mu_x, \sigma_x), N(0, I)\,]$$

SEMI SUPERVISED

AVERAGE RUNTIMES

In order to test this program we have to run the M1+M2 test since that is the only test that is semi supervised. This test takes us nearly 48 hours to completely finish with 3000 epochs.

We did notice that after 2500 epochs the error did not decrease a lot. With a "good" result already showing up at around 2000 epochs.

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HTTPS://GITHUB.COM/SANDERVANL/DEEP-SEMI-SUPERVISED-LEARNING