

Joshua Krasnogorov

Martin Cenek

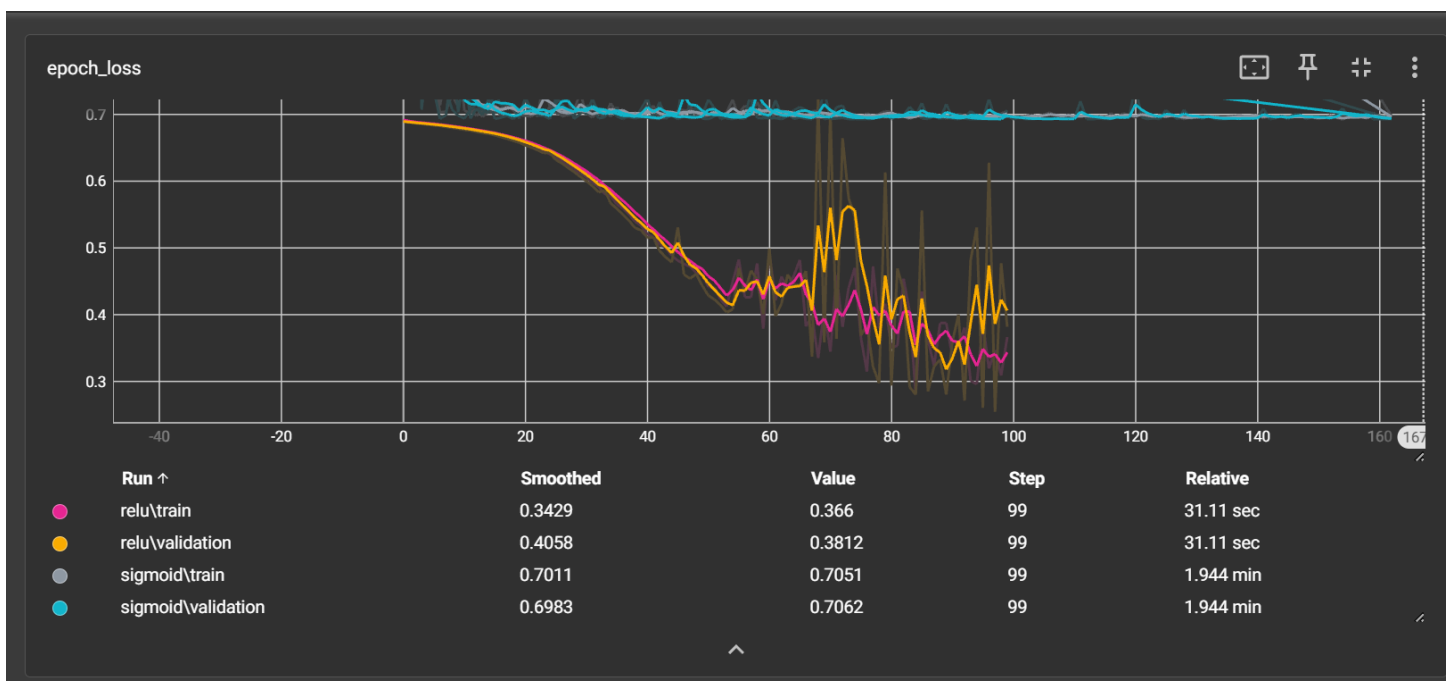
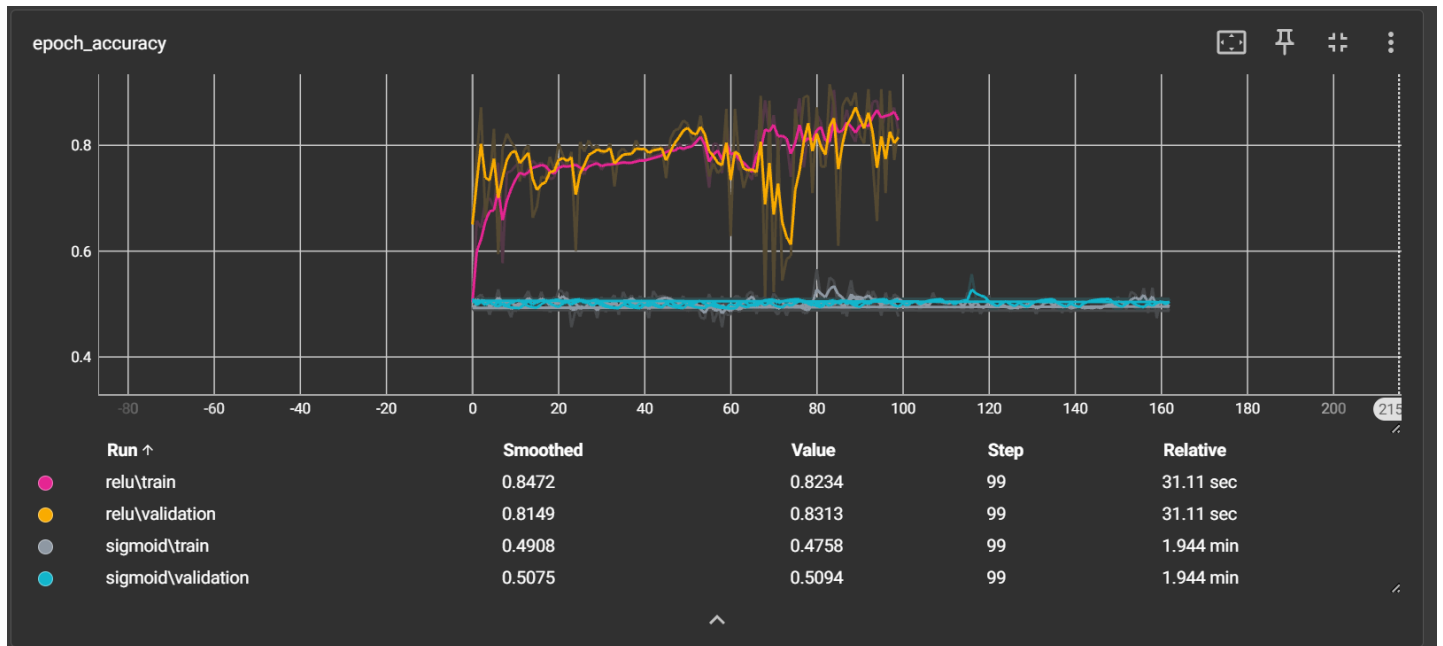
CS-429

2 April 2025

Lab 8

I did the TensorFlow beginners tutorial and the CNN tutorial from the TensorFlow website. I decided to use TensorBoard instead of matplotlib, since I found that I could get a lot more data visualized with much less effort on my end. The CNN ended up being significantly more accurate than running the extracted features, although training time was much longer.

Part 2



Part 3

I tested 3 configurations – one with a lot of filters, one with a larger kernel size, and one with fewer filters. After 5 epochs, every configuration had perfect test accuracy and 0 test loss, aside from the fewer filter model which had a test loss of 0.0003. However, the configuration with the larger kernel size converged the soonest to perfect accuracy and trained about twice as fast as the others.

configuration	average step time (ms)	test accuracy	test loss
more filters	224	1.0	0
larger kernel	110	1.0	0
fewer filters	290	1.0	.0003

