

# Update on Simple ResNet18 Model

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MATH 198: Spring 2020  
03/12/20



# Results for Simple Model with 50 Epochs

Epoch	train_loss	valid_loss	Accuracy	Time
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0	1.500706	1.424661	0.492900	00:09
1	1.241198	1.274286	0.542100	00:09
2	1.078623	1.243072	0.557200	00:09
3	1.000635	1.154447	0.594400	00:09
4	0.931333	1.060382	0.625600	00:09
5	0.867655	1.089734	0.625900	00:09
6	0.838121	0.985172	0.655000	00:10
7	0.758136	1.001458	0.658100	00:09
8	0.692397	0.928348	0.691100	00:09
9	0.636203	0.985803	0.679300	00:10
10	0.573609	0.943324	0.698700	00:10
11	0.517073	0.887306	0.718300	00:09



32	0.020540	1.490985	0.770500	00:10
33	0.017517	1.554860	0.768400	00:10
34	0.013740	1.532551	0.768400	00:09
35	0.008762	1.593562	0.771600	00:10
36	0.009962	1.598566	0.773700	00:10
37	0.006778	1.601054	0.770800	00:10
38	0.006056	1.658294	0.777800	00:10
39	0.001953	1.675515	0.774900	00:10
40	0.001175	1.701456	0.776500	00:10
41	0.000954	1.720655	0.779600	00:10
42	0.000745	1.738991	0.779300	00:10
43	0.000272	1.763893	0.778400	00:10
44	0.000089	1.763074	0.780100	00:10
45	0.000078	1.792883	0.777800	00:10
46	0.000143	1.802995	0.778100	00:09
47	0.000057	1.797095	0.778000	00:10
48	0.000027	1.808229	0.779300	00:10
49	0.000066	1.796459	0.778600	00:09



# Plan

- Use ResNet18 model code from PyTorch website
- Embed all 5 activation functions into architecture
  - ReLU, Swish, Mish, TAct, and mTAct
- Determine whether Tact and mTAct perform better than others for simpler models with fewer layers



# Issues

- Code for activation functions may not be properly implemented
- Error on the third import statement