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Layer (type) Output Shape Param #

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input\_1 (InputLayer) (None, 1) 0

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lambda\_1 (Lambda) (None, 512) 0

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dense\_1 (Dense) (None, 128) 65664

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dropout\_1 (Dropout) (None, 128) 0

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dense\_2 (Dense) (None, 1) 129

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Total params: 65,793

Trainable params: 65,793

Non-trainable params: 0

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Train on 400000 samples, validate on 100000 samples

Epoch 1/50

400000/400000 [==============================] - 783s 2ms/step - loss: 0.3180 - acc: 0.8618 - val\_loss: 0.2948 - val\_acc: 0.8743

Epoch 2/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.2809 - acc: 0.8806 - val\_loss: 0.2715 - val\_acc: 0.8858

Epoch 3/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.2565 - acc: 0.8931 - val\_loss: 0.2435 - val\_acc: 0.9004

Epoch 4/50

400000/400000 [==============================] - 766s 2ms/step - loss: 0.2352 - acc: 0.9033 - val\_loss: 0.2242 - val\_acc: 0.9091

Epoch 5/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.2154 - acc: 0.9128 - val\_loss: 0.2042 - val\_acc: 0.9185

Epoch 6/50

400000/400000 [==============================] - 752s 2ms/step - loss: 0.1974 - acc: 0.9205 - val\_loss: 0.1831 - val\_acc: 0.9281

Epoch 7/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.1815 - acc: 0.9274 - val\_loss: 0.1650 - val\_acc: 0.9373

Epoch 8/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.1672 - acc: 0.9340 - val\_loss: 0.1493 - val\_acc: 0.9444

Epoch 9/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.1539 - acc: 0.9396 - val\_loss: 0.1371 - val\_acc: 0.9485

Epoch 10/50

400000/400000 [==============================] - 766s 2ms/step - loss: 0.1427 - acc: 0.9444 - val\_loss: 0.1253 - val\_acc: 0.9542

Epoch 11/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.1315 - acc: 0.9489 - val\_loss: 0.1148 - val\_acc: 0.9582

Epoch 12/50

400000/400000 [==============================] - 766s 2ms/step - loss: 0.1232 - acc: 0.9521 - val\_loss: 0.1026 - val\_acc: 0.9645

Epoch 13/50

400000/400000 [==============================] - 780s 2ms/step - loss: 0.1150 - acc: 0.9559 - val\_loss: 0.0933 - val\_acc: 0.9685

Epoch 14/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.1075 - acc: 0.9590 - val\_loss: 0.0908 - val\_acc: 0.9682

Epoch 15/50

400000/400000 [==============================] - 767s 2ms/step - loss: 0.1010 - acc: 0.9613 - val\_loss: 0.0759 - val\_acc: 0.9756

Epoch 16/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.0955 - acc: 0.9638 - val\_loss: 0.0732 - val\_acc: 0.9758

Epoch 17/50

400000/400000 [==============================] - 759s 2ms/step - loss: 0.0898 - acc: 0.9662 - val\_loss: 0.0652 - val\_acc: 0.9791

Epoch 18/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.0851 - acc: 0.9677 - val\_loss: 0.0590 - val\_acc: 0.9817

Epoch 19/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.0806 - acc: 0.9697 - val\_loss: 0.0601 - val\_acc: 0.9817

Epoch 20/50

400000/400000 [==============================] - 766s 2ms/step - loss: 0.0770 - acc: 0.9711 - val\_loss: 0.0538 - val\_acc: 0.9838

Epoch 21/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.0729 - acc: 0.9728 - val\_loss: 0.0508 - val\_acc: 0.9844

Epoch 22/50

400000/400000 [==============================] - 770s 2ms/step - loss: 0.0695 - acc: 0.9741 - val\_loss: 0.0452 - val\_acc: 0.9868

Epoch 23/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.0672 - acc: 0.9748 - val\_loss: 0.0454 - val\_acc: 0.9858

Epoch 24/50

400000/400000 [==============================] - 762s 2ms/step - loss: 0.0641 - acc: 0.9761 - val\_loss: 0.0444 - val\_acc: 0.9863

Epoch 25/50

400000/400000 [==============================] - 766s 2ms/step - loss: 0.0611 - acc: 0.9774 - val\_loss: 0.0426 - val\_acc: 0.9866

Epoch 26/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.0597 - acc: 0.9779 - val\_loss: 0.0397 - val\_acc: 0.9882

Epoch 27/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0571 - acc: 0.9790 - val\_loss: 0.0369 - val\_acc: 0.9892

Epoch 28/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.0548 - acc: 0.9797 - val\_loss: 0.0319 - val\_acc: 0.9917

Epoch 29/50

400000/400000 [==============================] - 729s 2ms/step - loss: 0.0527 - acc: 0.9806 - val\_loss: 0.0311 - val\_acc: 0.9911

Epoch 30/50

400000/400000 [==============================] - 763s 2ms/step - loss: 0.0514 - acc: 0.9810 - val\_loss: 0.0332 - val\_acc: 0.9902

Epoch 31/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0496 - acc: 0.9816 - val\_loss: 0.0334 - val\_acc: 0.9900

Epoch 32/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0484 - acc: 0.9822 - val\_loss: 0.0286 - val\_acc: 0.9914

Epoch 33/50

400000/400000 [==============================] - 726s 2ms/step - loss: 0.0475 - acc: 0.9827 - val\_loss: 0.0259 - val\_acc: 0.9929

Epoch 34/50

400000/400000 [==============================] - 733s 2ms/step - loss: 0.0461 - acc: 0.9831 - val\_loss: 0.0235 - val\_acc: 0.9941

Epoch 35/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.0449 - acc: 0.9836 - val\_loss: 0.0219 - val\_acc: 0.9946

Epoch 36/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0433 - acc: 0.9842 - val\_loss: 0.0219 - val\_acc: 0.9945

Epoch 37/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0427 - acc: 0.9845 - val\_loss: 0.0206 - val\_acc: 0.9949

Epoch 38/50

400000/400000 [==============================] - 761s 2ms/step - loss: 0.0424 - acc: 0.9845 - val\_loss: 0.0212 - val\_acc: 0.9948

Epoch 39/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0405 - acc: 0.9852 - val\_loss: 0.0252 - val\_acc: 0.9924

Epoch 40/50

400000/400000 [==============================] - 764s 2ms/step - loss: 0.0402 - acc: 0.9853 - val\_loss: 0.0205 - val\_acc: 0.9948

Epoch 41/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0383 - acc: 0.9861 - val\_loss: 0.0173 - val\_acc: 0.9958

Epoch 42/50

400000/400000 [==============================] - 759s 2ms/step - loss: 0.0386 - acc: 0.9860 - val\_loss: 0.0184 - val\_acc: 0.9950

Epoch 43/50

400000/400000 [==============================] - 762s 2ms/step - loss: 0.0367 - acc: 0.9867 - val\_loss: 0.0167 - val\_acc: 0.9959

Epoch 44/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0371 - acc: 0.9865 - val\_loss: 0.0156 - val\_acc: 0.9967

Epoch 45/50

400000/400000 [==============================] - 760s 2ms/step - loss: 0.0357 - acc: 0.9870 - val\_loss: 0.0218 - val\_acc: 0.9935

Epoch 46/50

400000/400000 [==============================] - 765s 2ms/step - loss: 0.0355 - acc: 0.9871 - val\_loss: 0.0156 - val\_acc: 0.9961

Epoch 47/50

400000/400000 [==============================] - 760s 2ms/step - loss: 0.0345 - acc: 0.9874 - val\_loss: 0.0183 - val\_acc: 0.9947

Epoch 48/50

400000/400000 [==============================] - 763s 2ms/step - loss: 0.0335 - acc: 0.9878 - val\_loss: 0.0178 - val\_acc: 0.9952

Epoch 49/50

400000/400000 [==============================] - 760s 2ms/step - loss: 0.0335 - acc: 0.9880 - val\_loss: 0.0180 - val\_acc: 0.9952

Epoch 50/50

400000/400000 [==============================] - 760s 2ms/step - loss: 0.0333 - acc: 0.9878 - val\_loss: 0.0206 - val\_acc: 0.9936

50000/50000 [==============================] - 71s 1ms/step

Test score: 0.011744193750852719

Test accuracy: 0.99692

