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Experimental report on deep learning of symbolic value data

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01

Former Work



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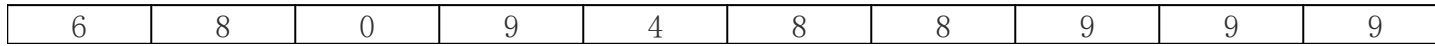
Generate Data

Number of Instances: 1000000

Number of Attributes: 10

number of each Attributes:10

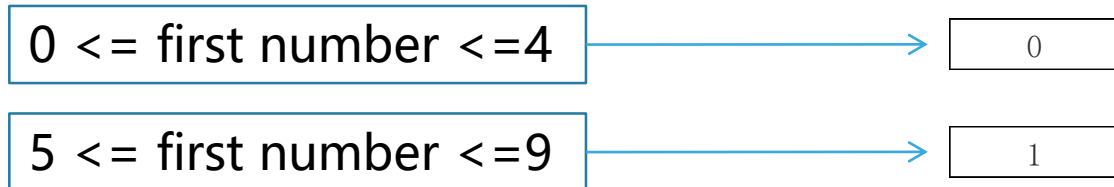
label: 0, 1



Hash

1526930275

1526930275

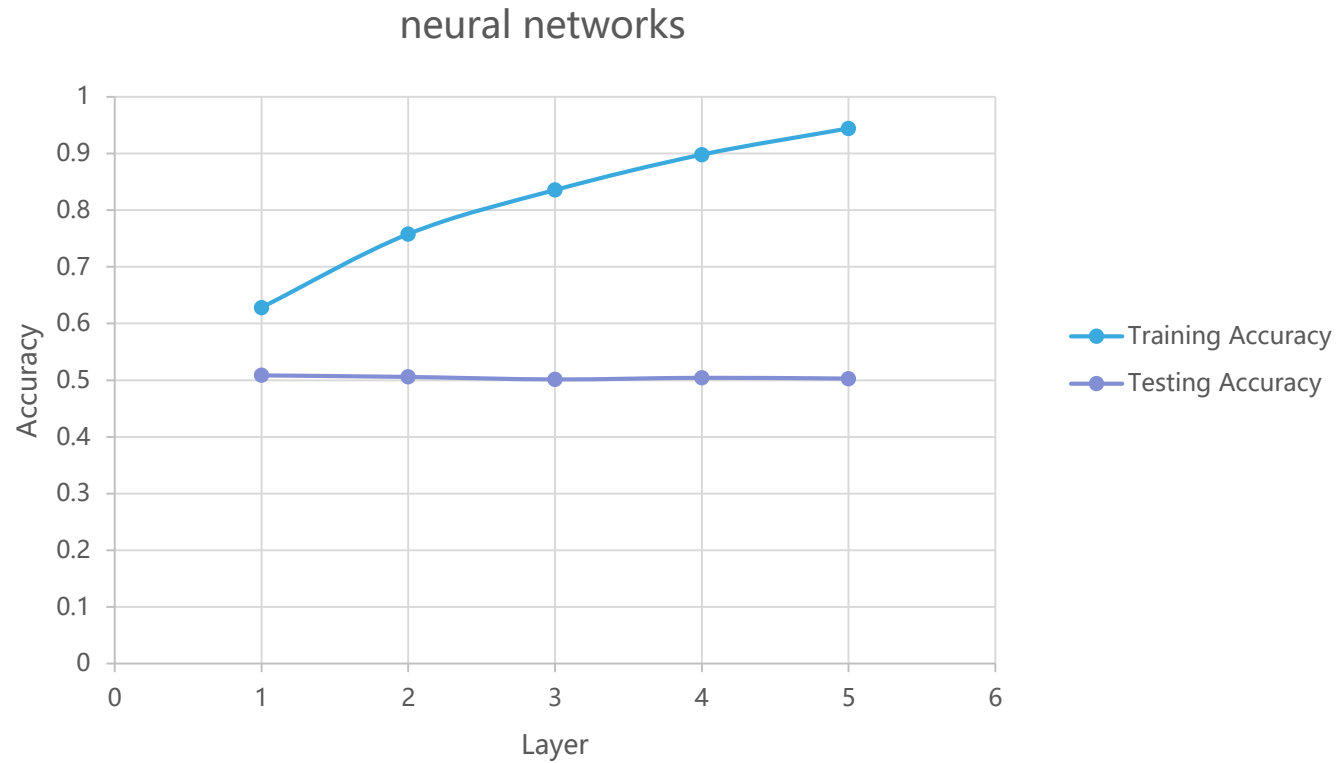


0	1
488822	511178





Result





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02

Recent Work



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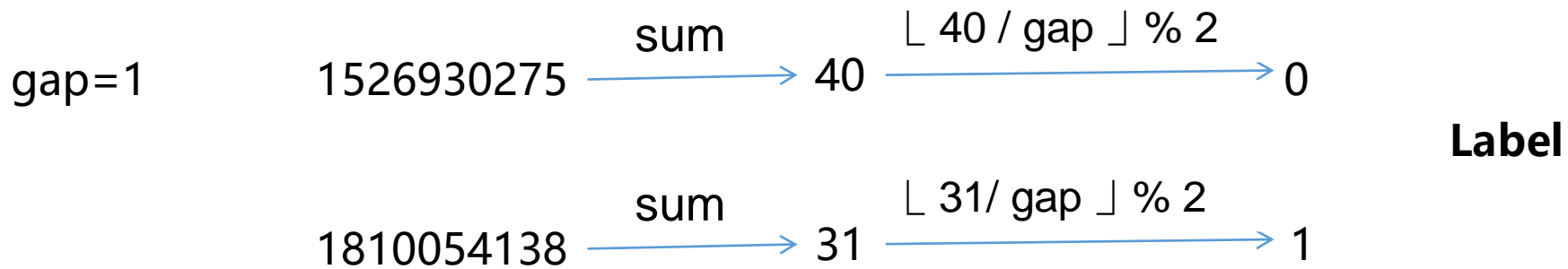
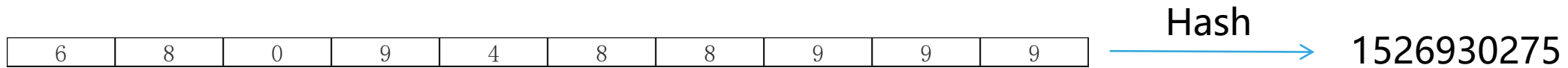
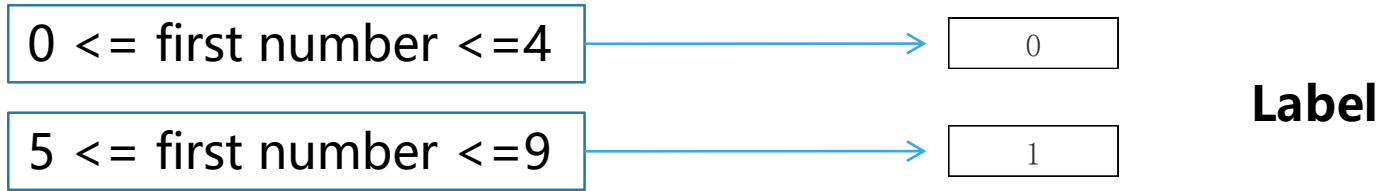
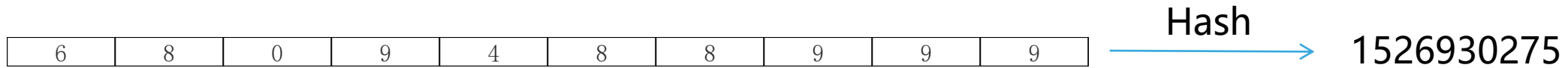


ELM Model

Training accuracy	Testing accuracy
0.5293	0.50245



Use new way to get label





formula to get label: $\lfloor \text{sum}(N) / \text{gap} \rfloor \% 2$

sum (N)	0	1	2	3	4	5	6	7	8	...
gap=1	0	1	0	1	0	1	0	1	0	...
gap=2	0	0	1	1	0	0	1	1	0	...
gap=3	0	0	0	1	1	1	0	0	0	...
gap=4	0	0	0	0	1	1	1	1	0	...
gap=5	0	0	0	0	0	1	1	1	1	...
.....										





Result

	Training accuracy	Testing accuracy
gap=1	0.53055	0.5013
gap=2	0.53025	0.50325
gap=9	0.5314875	0.49985
gap=10	0.5292625	0.5058





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03

Future Work



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Future Work

- 1、 Generate more data to see if the testing accuracy is improved.
- 2、 Use another way to generate a label.
- 3、 Figure out how the neural networks model works, so I can improve it myself.





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THANK YOU!



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