Secondly, I got the task to reach 99.5% precision with CNN. I tried a simple CNN model and got 98.15% (cnn.py) and got the idea that I have not enough data, so I used data augmentation techniques and tried to get a better results, however since the training was taking a lot of time and I was not getting better precision I decided to use batch normalization, Xavier initializer and batch feeding the data. However I got not much of the improvement 98.5% (nyt.py). Therefore I decided to migrate to Keras platform. Because you can use data augmentation technique in there also it is easier to define and train a model in Keras. With the help of google colab for faster training and Keras I got 99.7% precision (Independent.py).

174	▼ 17	Yong Deng		0.99700	6	9d
175	new	Limaopeng		0.99700	2	16h
176	▲ 2006	Hamed Khashehchi		0.99700	14	now

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178	▼ 19	univerky		0.99685	9	2mo
179	▼ 19	Shing		0.99685	2	2mo