CNN of KMNIST

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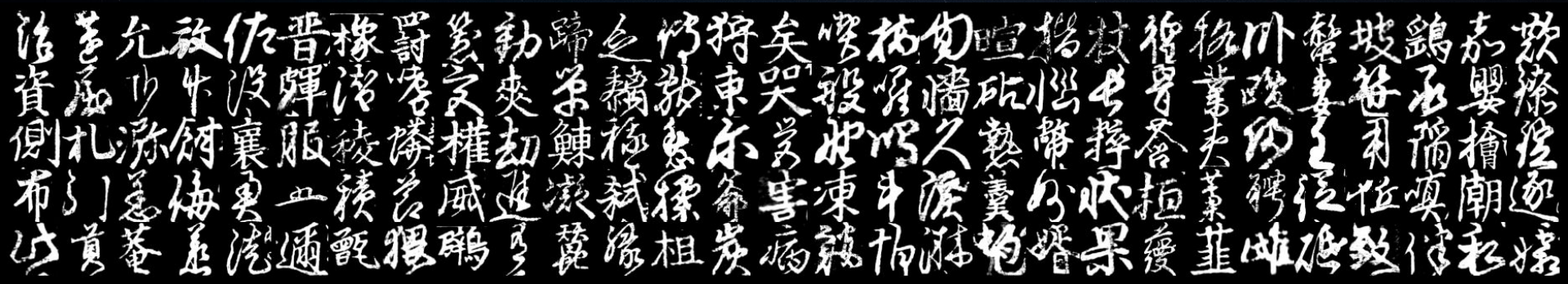
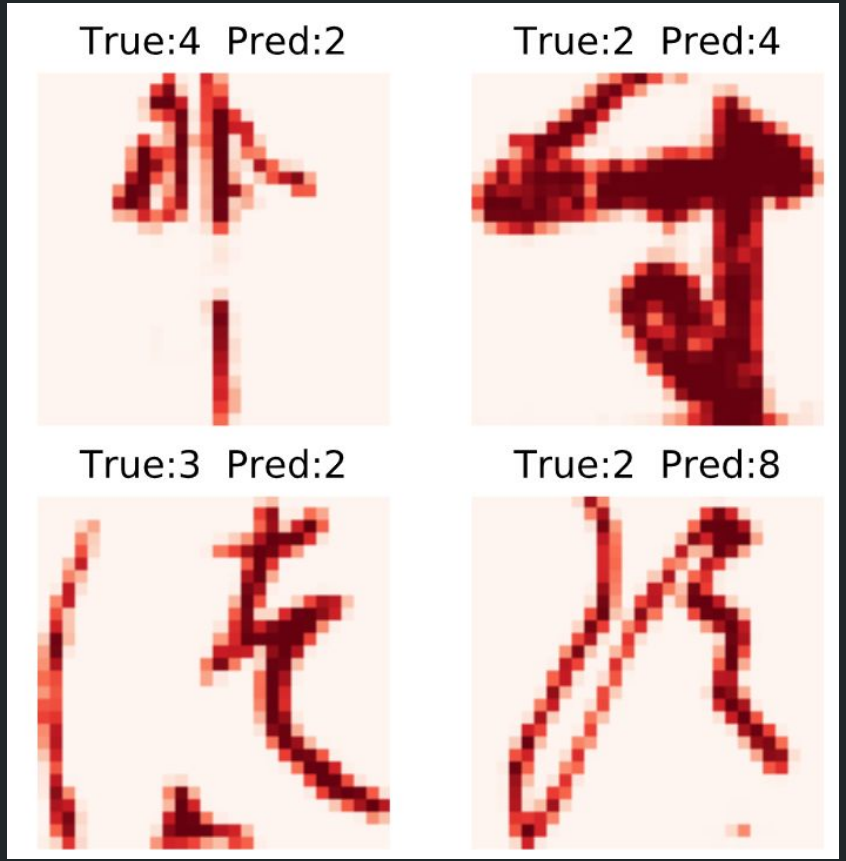


Dataset

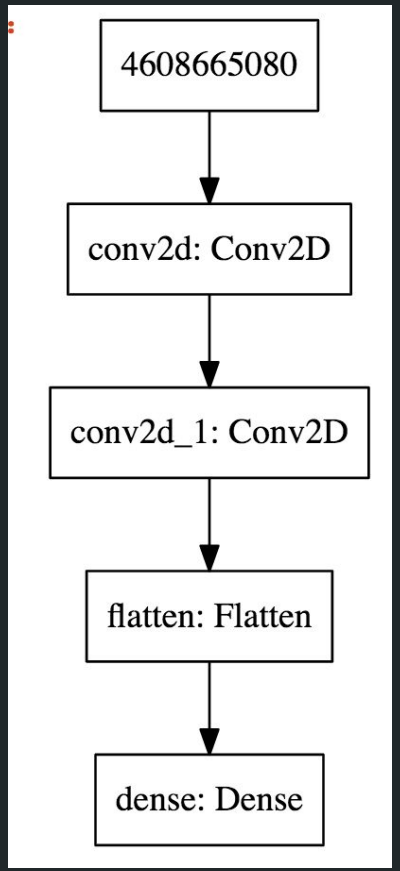
Handwritten kanji characters

Can we classify handwritten Japanese characters with a high degree of accuracy?



The Model

We've used a CNN to try and classify the data. It is a two layer network with 64 and then 32 nodes.



Early Results

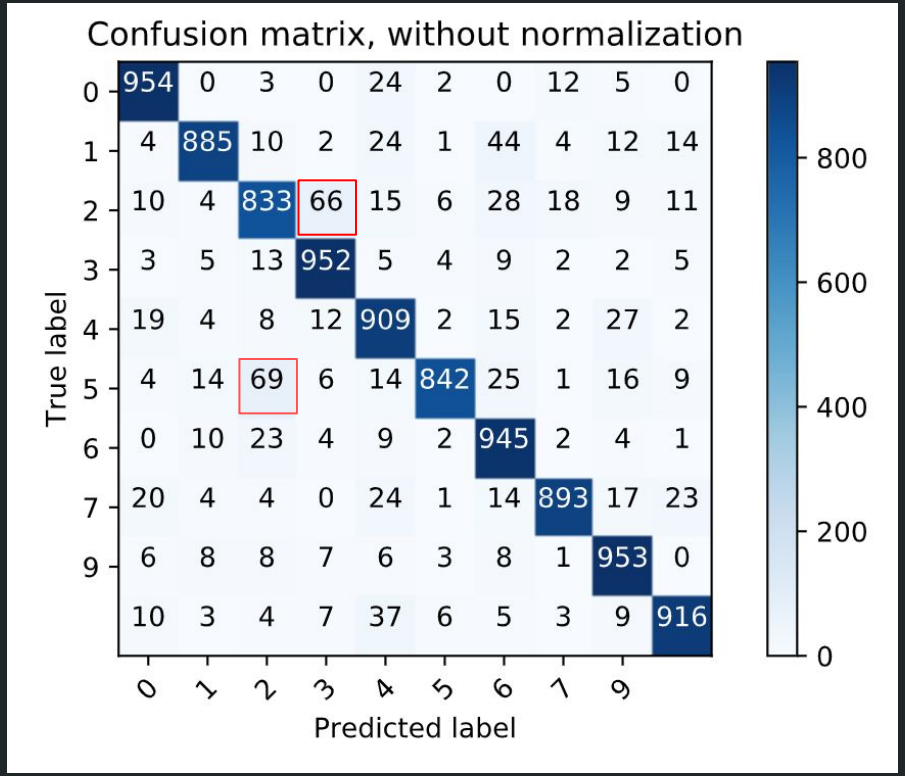
91% across precision and recall with the test data

Correct predicted classes: 9141
Incorrect predicted classes: 859

	precision	recall	f1-score	support
Class 0 (お):	0.95	0.93	0.94	1000
Class 1 (き):	0.89	0.93	0.91	1000
Class 2 (す):	0.86	0.85	0.86	1000
Class 3 (つ):	0.94	0.92	0.93	1000
Class 4 (な):	0.90	0.90	0.90	1000
Class 5 (は):	0.94	0.89	0.92	1000
Class 6 (ま):	0.90	0.94	0.92	1000
Class 7 (や):	0.91	0.91	0.91	1000
Class 8 (れ):	0.91	0.95	0.93	1000
Class 9 (を):	0.94	0.93	0.94	1000
avg / total	0.91	0.91	0.91	10000

Our Model is Confused

The highest incidences of confusion are occuring with the label 2 being incorrectly assigned to 5 and the label 3 being incorrectly assigned to 2.



Are we overfitting?