# Homework Report

朱思南

材硕16班

2016211454

1. Summary.

In this homework, I tried to learn the CNTK, and exert some optimization methods on CIFAR-10 data set, by means of corresponding tutorial. After training on Azure, I got some results.

1. Results.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | Basic CNN | CNN with dropout | CNN with batch normalization | VGG net | RES net |
| Time(s) | 297.76 | 294.76 | 289.34 | 708.55 | 1089.14 |
| Accuracy(％) | 73.7 | 74.1 | 73.7 | 75.1 | 70.9 |

1. New method.

Seriously it’s not a new method. But out of curiosity I tried the support vector machine, by means of the python package scikit-learn, on this problem. It took a long time to get the result, and the result was not good. Anyway I would submit the code.

It seems that this task is pretty hard to me, considering my major, but I did try my best. Maybe it need more time for me to get familiar with Deep Learning. I hope I’ll do better in next homework!