**Handwriting-number Recognition**

Hanyi Zhang, Linqiao Shang, Xin Li

1. **Introduction**

A computer vision project, based on MNIST library, trained with SVM, Neural Network and CNN methods, to classify handwriting number.

* 1. **Data collect**

Collect handwriting number (from 0 to 9) from MNIST dataset, which includes about 60000 training data and 10000 test data.

* 1. **Classification and Model design**

The project will implement about 3 machine learning methods: SVM, Neural Network and CNN to find the best algorithm (find the highest accuracy).

* 1. **Write Python program**

Train the model, test data and optimization.

1. **Source of data sets**

MNIST, one of the famous handwriting digits database

1. **Team members and respectively responsibility**

Hanyi Zhang: Algorithm design and optimization, comparison the results

Linqiao Shang: Presentation, researching related work and future directions

Xin Li: Python Program writing, proposal and final report writing