**Table 1.** The parameters settings of Stanford Classifier used in our reproduced NLP approach



**Table 2.** The parameters settings of our reproduced CNN approach



Table 3. Summary of the 20 projects in our study



**Table 4.** The performance comparison based on Dataset-M and Dataset-G under the MTO scenario:

Pattern vs. MAT



**Table 5.** The performance comparison based on Dataset-M and Dataset-G under the MTO scenario:

NLP vs. MAT



**Table 6.** The performance comparison based on Dataset-M and Dataset-G under the MTO scenario:

TM vs. MAT



**Table 7.** The performance comparison based on Dataset-M and Dataset-G under the MTO scenario:

Easy vs. MAT



**Table 8.** The performance comparison based on Dataset-M under the MTO scenario: CNN vs. MAT



**Table 9.** The performance comparison based on Dataset-M and Dataset-G under the OTO scenario:

NLP vs. MAT



**Table 10.** The performance comparison based on Dataset-M and Dataset-G under the OTO scenario:

TM vs. MAT



**Table 11.** The performance comparison based on Dataset-M and Dataset-G under the OTO scenario:

Easy vs. MAT



**Table 12.** The performance comparison based on Dataset-M under the OTO scenario: CNN vs. MAT

