

NLPCC 2016 Shared Tasks Results:

Stance Detection in Chinese Microblogs

1. Submission Status

There are two tasks (Task A and Task B) in this shared task. 16 teams submitted 16 valid results for Task A and 5 teams submitted 5 valid results for Task B. The team ID and the corresponding participants are listed in Table 1.

Team ID.	Organization
March	重庆理工计算机学院
BIT_NLP_FC	北京理工大学
Cbrain	Institute of Automation, Chinese Academy of Sciences
CQUT_AC996	Chongqing University of Technology(重庆理工计算机学院)
Lib1010	The School of Computer and Information Science, Southwest University
NEUDM	Data Mining Group, Computer Science Department, Northeastern University, China
nlp_polyu	The Hong Kong Polytechnic University
printf	中南财经政法大学信息与安全工程学院
RUC-MMC	Multimedia Computing Lab, School of Information, Remmin University of China
USCGreenTree	南华大学计算机科学与技术学院
CIST-BUPT	Center for Intelligence Science and Technology, School of Computer, Beijing University of Posts and Telecommunications
TopTeam	重庆理工计算机学院
SDS	Soochow University, School of Computer Sciences and Technology, Natural Language Processing Lab
Scau_SDCM	South China Agricultural University
SCHOOL	南华大学计算机科学与技术学院
HLJUNLP	Heilongjiang university

Table 1. The team ID and the corresponding participants

2. Shared Task Results

2.1 Evaluation metrics

This task aims to automatically determining from text whether the author is in favor of the given target, against the given target, or whether neither inference is likely. The overall macro-average of F-score(FAVOR) and F-score(AGAINST) is used as the bottom-line evaluation metric for both Task A and Task B, as shown below.

$$F_{avg} = \frac{F_{favor} + F_{against}}{2}$$

Where F_{favor} and $F_{against}$ are calculated as:

$$F_{favor} = \frac{2P_{favor}R_{favor}}{P_{favor} + R_{favor}}$$

$$F_{against} = \frac{2P_{against}R_{against}}{P_{against} + R_{against}}$$

Note that this evaluation measure does not disregard the “NONE” class. Falsely labeling “NONE” as “FAVOR” or “AGAINST” may affect score of precision and falsely labeling “FAVOR” or “AGAINST” may affect score of recall.

2.2 Task A: Supervised framework

Task A aims to detect stance towards five targets. Table 2 gives the evaluation result of Task A, including the overall performance and separated performances on Target-1 to Target-5 in turn corresponding to five specific targets namely “春节放鞭炮”, “iPhone SE”, “俄罗斯在叙利亚的反恐行动”, “开放二胎”, “深圳禁摩限电”. Note that Team ID with a star mark behind means it is a late submission.

Team ID	OVERALL			Target-1	Target-2	Target-3	Target-4	Target-5
	F _{against}	F _{favor}	F _{avg}	F _{avg}	F _{avg}	F _{avg}	F _{avg}	F _{avg}
RUC_MMC	0.7243	0.6969	0.7106	0.7730	0.5780	0.5814	0.8036	0.7652
TopTeam	0.7186	0.6601	0.6894	0.7449	0.5764	0.5232	0.7661	0.7949
SDS	0.6965	0.6758	0.6861	0.7784	0.5852	0.5332	0.7948	0.6883
CBrain	0.7094	0.6618	0.6856	0.7604	0.5528	0.4787	0.8135	0.7855
nlp_polyu	0.6870	0.6476	0.6673	0.7354	0.5312	0.5584	0.7708	0.7090
Scau_SDCM*	0.7027	0.6304	0.6666	0.7033	0.5493	0.5780	0.7639	0.7138
NEUDM	0.6858	0.6268	0.6563	0.7173	0.5485	0.5240	0.7497	0.7052
printf	0.6702	0.6183	0.6443	0.7048	0.5769	0.5547	0.7150	0.6417
CQUT_AC996	0.6557	0.5897	0.6227	0.7015	0.4646	0.5280	0.7661	0.5879
March*	0.6244	0.5858	0.6051	0.6950	0.5466	0.4906	0.6442	0.6169
BIT_NLP_FC*	0.5833	0.5573	0.5703	0.7444	0.3460	0.3769	0.5888	0.4195
HLJUNLP	0.6729	0.4584	0.5656	0.5281	0.4494	0.5126	0.7553	0.4355
CIST-BUPT	0.6136	0.4660	0.5398	0.4754	0.4579	0.5003	0.6867	0.5048
Lib1010	0.4944	0.4636	0.4790	0.4551	0.4420	0.4934	0.4946	0.5045
USCGreenTree*	0.5904	0.3609	0.4756	0.4799	0.4052	0.4586	0.5288	0.3871
SCHOOL	0.4662	0.3329	0.3995	0.3422	0.4222	0.3903	0.4613	0.3676

Table 2. Evaluation Results for Task A

2.3 Task B: Unsupervised framework

Task B aims to detect stance towards two targets without manually labeled data. Table 2 gives the evaluation result of Task B, Target-1 and Target-2 respectively corresponding to “转基因食品”, “朝鲜核试验”. Note that Team ID with a star mark behind means it is a late submission.

Team ID	OVERALL			Target-1	Target-2
	F _{against}	F _{favor}	F _{avg}	F _{avg}	F _{avg}
March*	0.5667	0.3707	0.4687	0.5173	0.4165
BIT_NLP_FC*	0.6137	0.2706	0.4421	0.4485	0.4289
CQUT_AC996	0.5455	0.2985	0.4220	0.4562	0.3815
TopTeam	0.6555	0.0000	0.3277	0.3266	0.3289
NEUDM	0.3987	0.2478	0.3232	0.1730	0.3628

Table 3. Evaluation Result for Task B