

CLASSIFICATION REPORTS

- Logistic Regression

Train set:				
	precision	recall	f1-score	support
Mainichi Shimbun	1.00	1.00	1.00	11010
The Japan Times	1.00	1.00	1.00	11010
asahi.com	0.34	0.34	0.34	11010
chunichi.co.jp	0.92	1.00	0.96	11010
hokkaido-np.co.jp	0.54	0.44	0.48	11010
isenp.co.jp	0.65	0.80	0.72	11010
iwate-np.co.jp	0.47	0.56	0.51	11010
kobe-np.co.jp	0.31	0.22	0.26	11010
kyoto-np.co.jp	0.48	0.49	0.48	11010
mainichi.jp	0.62	0.59	0.60	11010
nikkansports.com	0.52	0.67	0.59	11010
nikkei.com	0.52	0.61	0.56	11010
nishinippon.co.jp	0.28	0.11	0.16	11010
nnn.co.jp	0.67	0.89	0.76	11010
oita-press.co.jp	0.29	0.26	0.28	11010
sankei.jp.msn.com	0.26	0.17	0.20	11010
sanspo.com	0.42	0.44	0.43	11010
shimotsuke.co.jp	0.40	0.35	0.37	11010
tokachi.co.jp	0.84	1.00	0.91	11010
tokyo-np.co.jp	0.96	1.00	0.98	11010
tomamin.co.jp	0.45	0.51	0.48	11010
yamagata-np.jp	0.38	0.38	0.38	11010
yomiuri.co.jp	0.46	0.47	0.46	11010
accuracy			0.58	253230
macro avg	0.56	0.58	0.56	253230
weighted avg	0.56	0.58	0.56	253230

Test set:				
	precision	recall	f1-score	support
Mainichi Shimbun	0.25	0.33	0.29	15
The Japan Times	1.00	0.99	1.00	2611
asahi.com	0.36	0.31	0.33	2625
chunichi.co.jp	0.00	0.07	0.01	14
hokkaido-np.co.jp	0.49	0.41	0.45	2131
isenp.co.jp	0.14	0.52	0.23	299
iwate-np.co.jp	0.04	0.27	0.08	240
kobe-np.co.jp	0.18	0.15	0.16	1662
kyoto-np.co.jp	0.15	0.29	0.20	682
mainichi.jp	0.64	0.57	0.60	2748
nikkansports.com	0.56	0.64	0.60	2753
nikkei.com	0.52	0.56	0.54	2628
nishinippon.co.jp	0.29	0.10	0.14	2676
nnn.co.jp	0.02	0.23	0.03	69
oita-press.co.jp	0.32	0.23	0.27	2632
sankei.jp.msn.com	0.26	0.14	0.18	2624
sanspo.com	0.44	0.42	0.43	2608
shimotsuke.co.jp	0.35	0.28	0.31	1916
tokachi.co.jp	0.01	0.20	0.03	35
tokyo-np.co.jp	0.00	0.00	0.00	13
tomamin.co.jp	0.51	0.48	0.50	2604
yamagata-np.jp	0.06	0.17	0.09	517
yomiuri.co.jp	0.46	0.43	0.44	2666
accuracy			0.41	36768
macro avg	0.31	0.34	0.30	36768
weighted avg	0.45	0.41	0.42	36768

- Multi Layer Perceptrons

Train set:	precision	recall	f1-score	support
Mainichi Shimbun	0.9998	1.0000	0.9999	11010
The Japan Times	0.9999	0.9998	0.9999	11010
asahi.com	0.4460	0.4851	0.4647	11010
chunichi.co.jp	0.9984	0.9993	0.9988	11010
hokkaido-np.co.jp	0.7655	0.5602	0.6470	11010
isenp.co.jp	0.9271	0.9875	0.9563	11010
iwate-np.co.jp	0.9364	0.9793	0.9574	11010
kobe-np.co.jp	0.5066	0.4404	0.4712	11010
kyoto-np.co.jp	0.7085	0.8324	0.7655	11010
mainichi.jp	0.5663	0.7661	0.6512	11010
nikkansports.com	0.5936	0.7809	0.6745	11010
nikkei.com	0.5902	0.7164	0.6472	11010
nishinippon.co.jp	0.4774	0.1930	0.2749	11010
nnn.co.jp	0.9960	0.9997	0.9979	11010
oita-press.co.jp	0.4831	0.3279	0.3907	11010
sankei.jp.msn.com	0.3231	0.3149	0.3189	11010
sanspo.com	0.6027	0.4203	0.4953	11010
shimotsuke.co.jp	0.6301	0.5068	0.5618	11010
tokachi.co.jp	0.9959	1.0000	0.9980	11010
tokyo-np.co.jp	0.9976	1.0000	0.9988	11010
tomamin.co.jp	0.5281	0.7374	0.6154	11010
yamagata-np.jp	0.8019	0.8647	0.8321	11010
yomiuri.co.jp	0.5662	0.6213	0.5925	11010
accuracy			0.7189	253230
macro avg	0.7148	0.7189	0.7091	253230
weighted avg	0.7148	0.7189	0.7091	253230

Test set:	precision	recall	f1-score	support
Mainichi Shimbun	0.2308	0.2000	0.2143	15
The Japan Times	0.9950	0.9962	0.9956	2611
asahi.com	0.3658	0.3821	0.3738	2625
chunichi.co.jp	0.0385	0.0714	0.0500	14
hokkaido-np.co.jp	0.5926	0.4594	0.5176	2131
isenp.co.jp	0.2495	0.4214	0.3134	299
iwate-np.co.jp	0.1094	0.1792	0.1359	240
kobe-np.co.jp	0.2116	0.2088	0.2102	1662
kyoto-np.co.jp	0.1553	0.2669	0.1963	682
mainichi.jp	0.5284	0.6943	0.6001	2748
nikkansports.com	0.5529	0.7000	0.6178	2753
nikkei.com	0.5124	0.5997	0.5526	2628
nishinippon.co.jp	0.3503	0.1338	0.1936	2676
nnn.co.jp	0.1290	0.1159	0.1221	69
oita-press.co.jp	0.3505	0.2299	0.2777	2632
sankei.jp.msn.com	0.2344	0.2207	0.2273	2624
sanspo.com	0.5405	0.3708	0.4398	2608
shimotsuke.co.jp	0.3802	0.3288	0.3526	1916
tokachi.co.jp	0.0612	0.0857	0.0714	35
tokyo-np.co.jp	0.0000	0.0000	0.0000	13
tomamin.co.jp	0.4665	0.6179	0.5316	2604
yamagata-np.jp	0.0819	0.1257	0.0992	517
yomiuri.co.jp	0.4766	0.5008	0.4884	2666
accuracy			0.4584	36768
macro avg	0.3310	0.3439	0.3296	36768
weighted avg	0.4584	0.4584	0.4492	36768

- Random Forest

Train set:				
	precision	recall	f1-score	support
Mainichi Shimbun	1.0000	1.0000	1.0000	11010
The Japan Times	1.0000	1.0000	1.0000	11010
asahi.com	0.9999	0.9995	0.9997	11010
chunichi.co.jp	1.0000	0.9999	1.0000	11010
hokkaido-np.co.jp	0.9995	0.9990	0.9993	11010
isenp.co.jp	1.0000	1.0000	1.0000	11010
iwate-np.co.jp	0.9998	1.0000	0.9999	11010
kobe-np.co.jp	0.9991	0.9992	0.9991	11010
kyoto-np.co.jp	1.0000	1.0000	1.0000	11010
mainichi.jp	0.9976	0.9990	0.9983	11010
nikkansports.com	0.9998	0.9995	0.9997	11010
nikkei.com	0.9997	0.9999	0.9998	11010
nishinippon.co.jp	0.9995	0.9983	0.9989	11010
nnn.co.jp	0.9999	1.0000	1.0000	11010
oita-press.co.jp	0.9964	0.9982	0.9973	11010
sankei.jp.msn.com	0.9992	0.9985	0.9989	11010
sanspo.com	0.9987	0.9992	0.9990	11010
shimotsuke.co.jp	1.0000	0.9993	0.9996	11010
tokachi.co.jp	1.0000	1.0000	1.0000	11010
tokyo-np.co.jp	0.9999	1.0000	1.0000	11010
tomamin.co.jp	0.9998	0.9995	0.9997	11010
yamagata-np.jp	0.9995	0.9994	0.9994	11010
yomiuri.co.jp	0.9996	0.9995	0.9996	11010
accuracy			0.9995	253230
macro avg	0.9995	0.9995	0.9995	253230
weighted avg	0.9995	0.9995	0.9995	253230

Test set:				
	precision	recall	f1-score	support
Mainichi Shimbun	1.0000	0.0667	0.1250	15
The Japan Times	0.9890	1.0000	0.9945	2611
asahi.com	0.2463	0.3455	0.2876	2625
chunichi.co.jp	0.0000	0.0000	0.0000	14
hokkaido-np.co.jp	0.3546	0.3651	0.3598	2131
isenp.co.jp	0.0861	0.1639	0.1129	299
iwate-np.co.jp	0.1031	0.1125	0.1076	240
kobe-np.co.jp	0.1356	0.1221	0.1285	1662
kyoto-np.co.jp	0.1180	0.1481	0.1313	682
mainichi.jp	0.6112	0.5189	0.5613	2748
nikkansports.com	0.4549	0.6615	0.5391	2753
nikkei.com	0.3856	0.4989	0.4350	2628
nishinippon.co.jp	0.2006	0.1028	0.1359	2676
nnn.co.jp	0.1795	0.1014	0.1296	69
oita-press.co.jp	0.2261	0.1930	0.2082	2632
sankei.jp.msn.com	0.1824	0.1311	0.1525	2624
sanspo.com	0.3556	0.3025	0.3269	2608
shimotsuke.co.jp	0.2328	0.2103	0.2210	1916
tokachi.co.jp	0.1000	0.0286	0.0444	35
tokyo-np.co.jp	0.0000	0.0000	0.0000	13
tomamin.co.jp	0.2882	0.2869	0.2875	2604
yamagata-np.jp	0.0489	0.0484	0.0486	517
yomiuri.co.jp	0.3684	0.3758	0.3721	2666
accuracy			0.3627	36768
macro avg	0.2899	0.2515	0.2482	36768
weighted avg	0.3552	0.3627	0.3540	36768