tol	С	max_iter	training f1	valid f1	training f1 for each technique
0.001	1e-05	100	0.3607	0.3563	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2122, 0.0, 0.0, 0.5282, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	1e-05	200	0.3607	0.3565	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2119, 0.0, 0.0, 0.5282, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	1e-05	300	0.3611	0.3561	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2098, 0.0, 0.0, 0.5288, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	3e-05	100	0.3662	0.361	[0.0, 0.0, 0.0, 0.0, 0.0, 0.273, 0.0, 0.0, 0.5344, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	3e-05	200	0.3664	0.3607	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2719, 0.0, 0.0, 0.5346, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	3e-05	300	0.366	0.3612	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2714, 0.0, 0.0, 0.5343, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	100	0.3736	0.3676	[0.0, 0.0, 0.0, 0.0, 0.0, 0.331, 0.0, 0.0, 0.5452, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	200	0.3738	0.3686	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3314, 0.0, 0.0, 0.5454, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.0001	300	0.3743	0.3679	[0.0,0.0,0.0,0.0,0.0,0.3301,0.0,0.0,0.5461,0.0,0.0,0.0,0.0,0.0]
0.001	0.0003	100	0.3789	0.3715	[0.0,0.009,0.0,0.0,0.0,0.3532,0.0,0.0,0.5539,0.0,0.0,0.0,0.0,0.0]
0.001	0.0003	200	0.3782	0.3735	[0.0,0.009,0.0,0.0,0.0,0.353,0.0,0.0,0.5531,0.0,0.0,0.0,0.0,0.0]
0.001	0.0003	300	0.3786	0.3727	[0.0, 0.0083, 0.0, 0.0, 0.0, 0.3522, 0.0, 0.0, 0.5537, 0.0, 0.0, 0.0, 0.0, 0.0]
0.001	0.001	100	0.4022	0.3833	[0.0552, 0.2635, 0.0, 0.0542, 0.1206, 0.4244, 0.0295, 0.1025, 0.5665, 0.0085]
0.001	0.001	200	0.4026	0.3823	[0.0621, 0.264, 0.0, 0.0624, 0.118, 0.4258, 0.029, 0.101, 0.5669, 0.0161]
0.001	0.001	300	0.4023	0.3822	[0.0581, 0.2695, 0.0, 0.064, 0.1157, 0.4243, 0.0266, 0.105, 0.5667, 0.016]
0.0001	1e-05	100	0.3604	0.3566	[0.0,0.0,0.0,0.0,0.0,0.21,0.0,0.0,0.5281,0.0,0.0,0.0,0.0,0.0]
0.0001	1e-05	200	0.3613	0.3556	[0.0,0.0,0.0,0.0,0.0,0.2085,0.0,0.0,0.5289,0.0,0.0,0.0,0.0,0.0]
0.0001	1e-05	300	0.361	0.3558	[0.0,0.0,0.0,0.0,0.0,0.2127,0.0,0.0,0.5285,0.0,0.0,0.0,0.0,0.0]
0.0001	3e-05	100	0.3661	0.3614	[0.0,0.0,0.0,0.0,0.0,0.2727,0.0,0.0,0.5343,0.0,0.0,0.0,0.0,0.0]
0.0001	3e-05	200	0.3661	0.3612	[0.0,0.0,0.0,0.0,0.0,0.2712,0.0,0.0,0.5344,0.0,0.0,0.0,0.0,0.0]
0.0001	3e-05	300	0.3661	0.3615	[0.0,0.0,0.0,0.0,0.0,0.271,0.0,0.0,0.5344,0.0,0.0,0.0,0.0,0.0]
0.0001	0.0001	100	0.3737	0.3681	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3319, 0.0, 0.0, 0.5451, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0001	200	0.3737	0.3678	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3299, 0.0, 0.0, 0.5453, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0001	300	0.3738	0.3673	[0.0,0.0,0.0,0.0,0.0,0.33,0.0,0.0,
0.0001	0.0003	100	0.3788	0.372	[0.0, 0.0082, 0.0, 0.0, 0.0, 0.3528, 0.0, 0.0, 0.5539, 0.0, 0.0, 0.0, 0.0, 0.
0.0001	0.0003	200	0.379	0.3722	[0.0, 0.0097, 0.0, 0.0, 0.0, 0.3535, 0.0, 0.0, 0.554, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.0003	300	0.379	0.3715	[0.0, 0.0075, 0.0, 0.0, 0.0, 0.3534, 0.0, 0.0, 0.554, 0.0, 0.0, 0.0, 0.0, 0.0]
0.0001	0.001	100	0.4025	0.3831	[0.0546, 0.2704, 0.0, 0.0576, 0.1212, 0.4244, 0.0281, 0.1046, 0.5666, 0.0281, 0.1046, 0.5666, 0.0281
0.0001	0.001	200	0.4029	0.3828	[0.0608, 0.2665, 0.0, 0.0604, 0.1272, 0.4251, 0.0281, 0.0985, 0.5671, 0.088]
0.0001	0.001	300	0.4025	0.3836	[0.0567, 0.269, 0.0, 0.0585, 0.1121, 0.4244, 0.0318, 0.1006, 0.5667, 0.00, 0.0006
1e-05	1e-05	100	0.3612	0.3553	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2104, 0.0, 0.0, 0.5288, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	1e-05	200	0.3609	0.3561	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2125, 0.0, 0.0, 0.5285, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	1e-05	300	0.3608	0.3563	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2109, 0.0, 0.0, 0.5284, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	3e-05	100	0.3657	0.3615	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2719, 0.0, 0.0, 0.534, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	3e-05	200	0.3662	0.3615	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2717, 0.0, 0.0, 0.5345, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	3e-05	300	0.3665	0.3604	[0.0, 0.0, 0.0, 0.0, 0.0, 0.2739, 0.0, 0.0, 0.5347, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	100	0.3746	0.3686	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3305, 0.0, 0.0, 0.5463, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	200	0.3741	0.3687	[0.0, 0.0, 0.0, 0.0, 0.0, 0.3312, 0.0, 0.0, 0.5457, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0001	300	0.3738	0.3691	[0.0,  0.0,  0.0,  0.0,  0.0,  0.3303,  0.0,  0.0,  0.5454,  0.0,  0.0,  0.0,  0.0,  0.0]
1e-05	0.0003	100	0.3785	0.372	[0.0, 0.0082, 0.0, 0.0, 0.0, 0.3521, 0.0, 0.0, 0.5537, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0003	200	0.3788	0.372	[0.0, 0.0105, 0.0, 0.0, 0.0, 0.3526, 0.0, 0.0, 0.5538, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.0003	300	0.3784	0.3722	[0.0, 0.009, 0.0, 0.0, 0.0, 0.3531, 0.0, 0.0, 0.5534, 0.0, 0.0, 0.0, 0.0, 0.0]
1e-05	0.001	100	0.4025	0.3833	[0.0594, 0.2707, 0.0, 0.0469, 0.1261, 0.4259, 0.0271, 0.1002, 0.5666, 0.0271
1e-05	0.001	200	0.4032	0.3822	[0.0566, 0.2685, 0.0, 0.0579, 0.1173, 0.4255, 0.0285, 0.1041, 0.5674, 0.0885, 0.0
1e-05	0.001	300	0.402	0.383	[0.061, 0.2614, 0.0, 0.0608, 0.115, 0.425, 0.0265, 0.1045, 0.5664, 0.018]

tol	С	$\max_{}$ iter	training f1	valid f1	training f1 for each technique
0.0001	0.001	300	0.4025	0.3836	[0.0567, 0.269, 0.0, 0.0585, 0.1121, 0.4244, 0.0318, 0.1006, 0.5667, 0.01]