IML25 Term Project Challenge Results

8 December 2025

Below you can find the private leaderboard results of the term project challenge for the best selected or auto-selected submission for each team. The team names are the respective Kaggle team names. We have computed the aggregate score and each constituent metric separately. Additionally we have included a bonus category: area under the ROC curve (AUC).

Computed metrics

Team	Aggregate Score	Binary Accuracy	Multiclass Accuracy	Normalized Perplexity	Perplexity	AUC
Teemu Ruokokoski	0.78337	0.90285	0.73834	0.70891	1.29109	0.95958
Pavel Allen	0.77062	0.89896	0.71762	0.69528	1.30472	0.95525
Group 57	0.76972	0.90155	0.71891	0.68871	1.31129	0.95892
Group 122	0.76679	0.88601	0.72280	0.69157	1.30843	0.95585
Group M	0.75621	0.88731	0.71632	0.66500	1.33500	0.95044
Group 58	0.75280	0.87824	0.69948	0.68068	1.31932	0.95274
IML TEAM	0.75235	0.88212	0.70596	0.66897	1.33103	0.95082
Group 48	0.75186	0.88601	0.69430	0.67527	1.32473	0.95216
Group 24	0.75112	0.88990	0.70078	0.66269	1.33731	0.95133
Group 135	0.74846	0.87565	0.70466	0.66508	1.33492	0.94802
Viktoria Lilitskaia	0.74706	0.86917	0.71891	0.65310	1.34690	0.94637
Group88	0.74419	0.86917	0.71244	0.65097	1.34903	0.94637
Group 69	0.74350	0.86269	0.71244	0.65536	1.34464	0.94654
Group L	0.74287	0.87694	0.69948	0.65220	1.34780	0.94623
Group 20	0.74205	0.86788	0.70207	0.65621	1.34379	0.94737
Group H	0.74200	0.87694	0.69689	0.65218	1.34782	0.94611
Meeri Mls	0.74141	0.86917	0.70466	0.65038	1.34962	0.94540
Group 11	0.74137	0.86399	0.70596	0.65415	1.34585	0.94657
Riku Mattila	0.74135	0.87565	0.69560	0.65281	1.34719	0.94609
Viljami Ranta	0.74134	0.87306	0.69560	0.65536	1.34464	0.94654
Group 34	0.74112	0.86010	0.71114	0.65212	1.34788	0.94850
Group E	0.74081	0.87694	0.69689	0.64861	1.35139	0.94958
Group 123	0.74079	0.87824	0.70207	0.64205	1.35795	0.94084
Alexia Muresan	0.74013	0.86658	0.70466	0.64914	1.35086	0.94478
Group 77	0.73983	0.87435	0.70078	0.64436	1.35564	0.94313
Group 274	0.73942	0.87306	0.70078	0.64443	1.35557	0.95166
Group 60	0.73884	0.87694	0.69171	0.64786	1.35214	0.94447
Group 2	0.73877	0.87306	0.69041	0.65284	1.34716	0.94567
Group 3	0.73832	0.86917	0.69041	0.65536	1.34464	0.94654
Group 1	0.73784	0.87694	0.69171	0.64487	1.35513	0.94325
Rene Fiedler	0.73781	0.86917	0.69689	0.64737	1.35263	0.94491
Group 56	0.73715	0.86010	0.69948	0.65185	1.34815	0.94594

Group G	0.73686	0.87565	0.68005	0.65489	1.34511	0.94697
Group_72	0.73670	0.87694	0.69560	0.63755	1.36245	0.94588
sani kemppainen	0.73657	0.86140	0.69689	0.65141	1.34859	0.94496
Maja Kubik	0.73657	0.87176	0.68653	0.65141	1.34859	0.94496
Group 222	0.73642	0.87047	0.68264	0.65614	1.34386	0.94695
Group C	0.73631	0.86269	0.68523	0.66100	1.33900	0.94693
Group 94	0.73610	0.87565	0.71632	0.61632	1.38368	0.93392
Group 7	0.73578	0.87047	0.68394	0.65294	1.34706	0.94665
Group 12	0.73385	0.86140	0.70078	0.63937	1.36063	0.94133
73	0.73378	0.86528	0.71114	0.62493	1.37507	0.93787
Joandrs	0.73308	0.86140	0.69689	0.64096	1.35904	0.94291
Group 52	0.73257	0.86010	0.68005	0.65754	1.34246	0.94657
AntonJa	0.73247	0.85881	0.68653	0.65208	1.34792	0.94702
Group 111	0.73155	0.86528	0.69689	0.63248	1.36752	0.94154
Nora Bokousa	0.73087	0.85104	0.68782	0.65376	1.34624	0.94445
Emilia Koponen	0.73013	0.86269	0.69689	0.63080	1.36920	0.93957
Group F	0.72986	0.86399	0.68912	0.63647	1.36353	0.94222
Group 100	0.72986	0.86399	0.68912	0.63647	1.36353	0.94222
Group 84	0.72985	0.86399	0.68912	0.63644	1.36356	0.94224
Santtu Jyrinki	0.72901	0.86269	0.68135	0.64298	1.35702	0.94656
group 256	0.72867	0.85751	0.69689	0.63161	1.36839	0.94351
Group 55	0.72830	0.85492	0.69041	0.63955	1.36045	0.93939
Miikka Moilanen	0.72820	0.86269	0.69171	0.63021	1.36979	0.94029
Justin Raj Anthony	0.72790	0.86788	0.69948	0.61635	1.38365	0.93642
XYZ	0.72763	0.85881	0.68523	0.63885	1.36115	0.94245
Kokoro Horiuchi	0.72672	0.86399	0.69819	0.61798	1.38202	0.93688
Group 49	0.72555	0.86399	0.68653	0.62614	1.37386	0.93949
Oliver Raffon	0.72547	0.86528	0.69301	0.61811	1.38189	0.93649
Group 14	0.72510	0.86140	0.68912	0.62477	1.37523	0.93698
group 70	0.72434	0.86140	0.67358	0.63804	1.36196	0.94067
Group 71	0.72329	0.85492	0.70596	0.60898	1.39102	0.94267
Group D	0.72264	0.85492	0.70207	0.61092	1.38908	0.93181
Group 204	0.72259	0.86658	0.67358	0.62762	1.37238	0.94519
Group 168	0.72201	0.86528	0.68523	0.61550	1.38450	0.94145
Group O	0.72190	0.86528	0.70337	0.59705	1.40295	0.94553
Severi Mntyl	0.72183	0.83679	0.67746	0.65123	1.34877	0.94487
Group 200	0.72120	0.86269	0.69560	0.60531	1.39469	0.93678
Group 10	0.72102	0.86269	0.68523	0.61515	1.38485	0.93832
Barry K24	0.71916	0.85881	0.67876	0.61992	1.38008	0.93723
Nisrine Noussi	0.71868	0.86269	0.68135	0.61199	1.38801	0.93723
Zachary Gabriel Tan	0.71705	0.85363	0.67876	0.61875	1.38125	0.93456
Group 110	0.71669	0.84845	0.68264	0.61899	1.38101	0.93535
Group 120	0.71590	0.85881	0.69041	0.59848	1.40152	0.93384
Aayush Ghimire	0.71566	0.85492	0.68782	0.60422	1.39578	0.93206
Group 40	0.71485	0.85492	0.68523	0.60441	1.39559	0.92924
Group 37Yigit Inan	0.71300	0.85363	0.68394	0.60144	1.39856	0.93400
Group 76	0.71262	0.85622	0.67876	0.60288	1.39712	0.93258
Jaakko Rytinki	0.71176	0.84845	0.69430	0.59253	1.40747	0.93565
Group 26	0.71134	0.85881	0.67228	0.60294	1.39706	0.93438
Group 275	0.70908	0.86269	0.68523	0.57931	1.42069	0.93918

Verneri Sarjomaa	0.70665	0.84326	0.67228	0.60441	1.39559	0.92924
Tuomas Niemi 2	0.69734	0.83808	0.69430	0.55964	1.44036	0.92466
Group 22	0.69208	0.85881	0.59585	0.62158	1.37842	0.93430
Group K	0.69131	0.85233	0.66839	0.55319	1.44681	0.92406
Group 68	0.68112	0.87824	0.51295	0.65216	1.34784	0.94627
Group B	0.67821	0.83938	0.66321	0.53204	1.46796	0.91351
Fatima Asim	0.66910	0.86658	0.51425	0.62647	1.37353	0.94068
Group 29	0.65868	0.81218	0.67228	0.49160	1.50840	0.90363
Group 183	0.65799	0.82642	0.65674	0.49080	1.50920	0.89937
Group 45	0.65571	0.85622	0.69041	0.42051	1.57949	0.92938
Group 134	0.64948	0.86140	0.49223	0.59482	1.40518	0.93061
Group 59	0.64894	0.86010	0.66969	0.41701	1.58299	0.92608
ngdeqi	0.64854	0.87435	0.70855	0.36272	1.63728	0.91188
Group 299	0.64613	0.85881	0.66710	0.41249	1.58751	0.88195
samvancart	0.63784	0.83549	0.65544	0.42258	1.57742	0.90941
Group 266	0.61961	0.86528	0.71503	0.27852	1.72148	0.92039
Sonja Olkkonen	0.61239	0.78886	0.65933	0.38900	1.61100	0.92853
Group 9	0.58687	0.76036	0.65026	0.34998	1.65002	0.92740
John 117	0.57045	0.77073	0.61140	0.32923	1.67077	0.85138
Tuuli Kirkinen	0.53707	0.53627	0.53627	0.53866	1.46134	0.91729
Group P	0.53368	0.88601	0.71503	0.00000	12.72403	0.08503
GroupP	0.52936	0.87047	0.71762	0.00000	20.09622	0.08363
Group I	0.52677	0.87824	0.70207	0.00000	Inf	0.14428
Laura Andstrm	0.51986	0.86399	0.69560	0.00000	Inf	0.13960
Jacob Bromann	0.51900	0.86269	0.69430	0.00000	Inf	0.13705
Group N	0.51813	0.85233	0.70207	0.00000	Inf	0.16868
50	0.51770	0.87047	0.68264	0.00000	6.63771	0.31624
Group 300	0.51727	0.86399	0.68782	0.00000	7.57448	0.15449
Pyry Lahtinen	0.51641	0.85104	0.69819	0.00000	Inf	0.15259
Group 150	0.51511	0.87306	0.67228	0.00000	4.09468	0.12745
Group 116	0.51339	0.86658	0.67358	0.00000	Inf	0.95098
Group 23	0.51209	0.84197	0.69430	0.00000	3.50854	0.13008
Owlaboy	0.50950	0.84974	0.67876	0.00000	Inf	0.14568
Pekka MM	0.50907	0.85104	0.67617	0.00000	Inf	0.81170
essipe	0.50764	0.80181	0.52720	0.19390	1.80610	0.90528
Group 114	0.50734	0.84585	0.67617	0.00000	Inf	0.16804
saeedd1990	0.50648	0.84845	0.67098	0.00000	7.41734	0.20256
Samuel Axberg	0.50345	0.83290	0.67746	0.00000	4.71532	0.11049
Group 272	0.50043	0.83161	0.66969	0.00000	Inf	0.12654
Karoliina Mietola	0.49223	0.82124	0.65544	0.00000	Inf	0.88064
Giovanni Marchi	0.43005	0.71762	0.57254	0.00000	6.10679	0.25233
Aarni Rechardt	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Abdullah badal	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
BigGGba	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Emma van Oijen	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
GorvoiD	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Group 180	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Group 255	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Group 41	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Group 44	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563

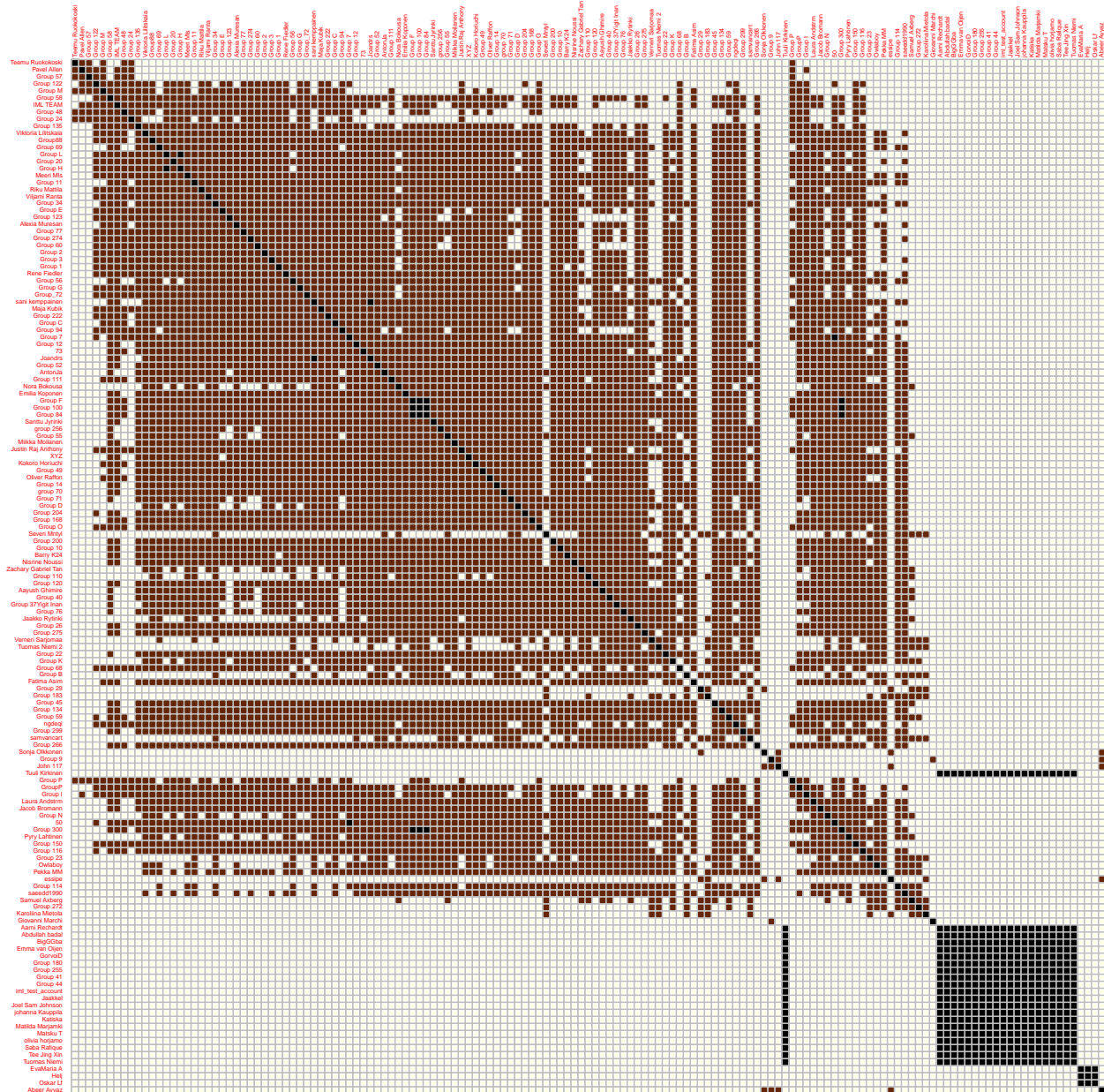|						
iml_test_account	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Jaakkel	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Joel Sam Johnson	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
johanna Kauppila	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Katiska	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Matilda Marjamki	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Matsku T	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
olivia horjamo	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Saba Rafique	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Tee Jing Xin	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
Tuomas Niemi	0.35751	0.53627	0.53627	0.00000	2.00000	0.50563
EvaMaria A	0.24007	0.46373	0.25648	0.00000	2.00000	0.50563
Helj	0.24007	0.46373	0.25648	0.00000	2.00000	0.50563
Oskar Lf	0.24007	0.46373	0.25648	0.00000	2.00000	0.50563
Abeer Ayyaz	NA	0.76554	NA	0.00000	3.83259	0.78113

Winners and runners-up

The winning teams and runners-up for each category are:

- **Aggregate score** (main category): Winner: `Teemu Ruokokoski` (0.7833675). Runners-up: `Pavel Allen` (0.7706198) and `Group 57` (0.7697243).
- **Binary classification accuracy**: Winner: `Teemu Ruokokoski` (0.9028497). Runners-us: `Pavel Allen` (0.8989637) and `Group 57` (0.9015544).
- **Multiclass classification accuracy**: Winner: `Teemu Ruokokoski` (0.738342). Runners-up: `Group 122` (0.7227979) and `Group 57` (0.7189119).
- **Perplexity** (equivalent to log-loss): Winner: `Teemu Ruokokoski` (1.2910891). Runners-up: `Pavel Allen` (1.304721) and `Group 122` (1.3084333).
- **Area under the ROC curve (AUC)** (bonus category): Winner: `Teemu Ruokokoski` (0.9595849). Runners-up: `Group 57` (0.958917) and `Group 122` (0.955847).

Congratulations to all!

McNemar's test

We compared the binary classification predictions given by the teams. In the plot below, a dark circle means that the difference in performance between two groups is not statistically significant (McNemar's test, $p = 0.05$). We notice that 7 teams perform statistically indistinguishably with the best team in the binary classification task.

ROC curves

Below, you can find the receiver operating characteristics (ROC) graphs for all answers. We have computed the ROC graphs using the actual binary classes (`class2`) and the probabilities reported in the submission files. An area under the ROC curve (AUC) of one means that there exists a probability threshold θ such that the predicted probability of the event for all non-event days is at most θ and the predicted probability of an event for event days is at least θ. Random guessing has an AUC of 0.5. An AUC of less than 0.5 means that the probability estimate output by the classifier is worse than random guessing.