5. Appendix

Table A.1. Average AUC and G-mean results obtained by SIG-NN and GEV-NN. The best result for each imbalance dataset appears bold faced.

Datasets	AUC		G-mean		Datasets	AUC		G-mean	
	SIG-NN	GEV-NN	SIG-NN	GEV-NN		SIG-NN	GEV-NN	SIG-NN	GEV-NN
abalone17vs78910	**0.9408**	0.9361	**0.8892**	0.8873	krvskzerovsfteen	1.0000	1.0000	1.0000	1.0000
abalone19	**0.7850**	0.7419	**0.7805**	0.7247	led7digit02456789vs1	**0.9549**	0.9505	**0.9298**	0.9218
abalone19vs10111213	0.6291	**0.7675**	0.6828	**0.7647**	lymphography	0.9612	**0.9717**	0.9666	**0.9741**
abalone20vs8910	**0.9581**	0.9009	**0.9225**	0.8840	newthyroid1	1.0000	1.0000	1.0000	1.0000
abalone21vs8	**0.9080**	0.9057	0.8892	**0.8898**	newthyroid2	0.9992	0.9992	0.9972	0.9972
abalone3vs11	1.0000	1.0000	1.0000	1.0000	pageblocks0	0.9862	**0.9890**	0.9531	**0.9574**
abalone9vs18	**0.9388**	0.9246	**0.9036**	0.8862	pageblocks13vs4	**0.9996**	0.9940	**0.9989**	0.9921
cargood	**0.9685**	0.9667	**0.9595**	0.9545	pima	0.8285	**0.8311**	**0.7748**	0.7712
carvgood	**0.9957**	0.9950	**0.9925**	0.9924	poker89vs5	**0.5812**	0.4080	**0.6318**	0.5165
cleveland0vs4	**0.9521**	0.9344	**0.9429**	0.9429	poker89vs6	0.8775	**0.8932**	0.9022	**0.9152**
dermatology6	1.0000	1.0000	1.0000	1.0000	poker8vs6	0.8189	**0.9660**	0.8447	**0.9714**
ecoli0137vs26	**0.8890**	0.8260	**0.9326**	0.8759	poker9vs7	**0.8278**	0.7553	**0.8585**	0.8405
ecoli0146vs5	**0.9452**	0.9245	**0.9249**	0.9026	segment0	0.9999	0.9999	**0.9990**	0.9982
ecoli0147vs2356	**0.9382**	0.9377	0.9020	**0.9135**	shuttle2vs5	0.9999	**1.0000**	0.9998	**1.0000**
ecoli0147vs56	**0.9457**	0.9397	**0.9395**	0.9275	shuttle6vs23	1.0000	1.0000	1.0000	1.0000
ecoli01vs235	0.9152	**0.9309**	0.8994	**0.9204**	shuttlec0vsc4	0.9953	**0.9957**	0.9960	0.9960
ecoli01vs5	**0.9392**	0.9278	**0.9429**	0.9383	shuttlec2vsc4	**1.0000**	0.9920	**1.0000**	0.9960
ecoli0234vs5	**0.9191**	0.8934	**0.9135**	0.9086	vehicle0	0.9940	**0.9951**	**0.9851**	0.9836
ecoli0267vs35	**0.9219**	0.9215	**0.9308**	0.9285	vehicle1	**0.8853**	0.8773	**0.8225**	0.8197
ecoli0346vs5	**0.8959**	0.8635	0.9037	**0.9215**	vehicle2	**0.9957**	0.9924	**0.9798**	0.9782
ecoli0347vs56	0.9205	**0.9395**	0.9316	**0.9457**	vehicle3	0.8490	**0.8548**	**0.8040**	0.8013
ecoli034vs5	0.9146	**0.9444**	0.9424	**0.9424**	vowel0	1.0000	1.0000	1.0000	1.0000
ecoli046vs5	**0.9131**	0.9022	**0.9054**	0.8850	winequalityred3vs5	**0.6683**	0.6588	0.7564	**0.7582**
ecoli067vs35	**0.9185**	0.9038	**0.9400**	0.9190	winequalityred4	**0.7721**	0.7609	**0.7542**	0.7325
ecoli067vs5	0.8900	**0.9038**	0.9222	**0.9324**	winequalityred8vs6	0.8195	**0.9040**	0.8151	**0.8970**
ecoli0vs1	**0.9954**	0.9905	**0.9866**	0.9831	winequalityred8vs67	**0.7412**	0.6755	**0.7725**	0.7383
ecoli1	0.9436	**0.9539**	**0.9014**	0.8965	winequalitywhite39vs5	0.6959	**0.7334**	0.7403	**0.7679**
ecoli2	0.9485	**0.9503**	0.9295	**0.9348**	winequalitywhite3vs7	0.7520	**0.7898**	0.7223	**0.7890**
ecoli3	0.9239	**0.9243**	**0.9299**	0.9160	winequalitywhite9vs4	**0.7184**	0.5797	**0.8220**	0.7350
ecoli4	0.9337	**0.9520**	0.9393	**0.9441**	wisconsin	0.9947	**0.9929**	0.9791	**0.9834**
flareF	**0.9106**	0.9038	**0.8771**	0.8768	yeast0256vs3789	**0.8464**	0.8155	**0.8001**	0.7823
glass0	**0.8564**	0.8381	**0.8246**	0.8175	yeast02579vs368	**0.9338**	0.9313	0.9184	**0.9282**
glass0123vs456	0.9692	**0.9747**	0.9653	**0.9682**	yeast0359vs78	0.7805	**0.8065**	0.7548	**0.7730**
glass0146vs2	0.7308	**0.7876**	0.7628	**0.8313**	yeast05679vs4	**0.8650**	0.8483	**0.8466**	0.8288
glass015vs2	**0.6801**	0.5366	**0.7413**	0.6179	yeast1	**0.8040**	0.8010	**0.7419**	0.7402
glass016vs2	0.6395	**0.7164**	0.6748	**0.7652**	yeast1289vs7	0.8125	**0.8200**	0.7695	**0.7967**
glass016vs5	0.9914	0.9914	0.9943	0.9943	yeast1458vs7	**0.7166**	0.6818	**0.7183**	0.7065
glass04vs5	1.0000	1.0000	1.0000	1.0000	yeast1vs7	0.8105	**0.8285**	**0.7920**	0.7848
glass06vs5	1.0000	1.0000	1.0000	1.0000	yeast2vs4	0.9408	**0.9483**	0.9184	**0.9223**
glass1	0.8153	**0.8295**	**0.7978**	0.7915	yeast2vs8	0.7345	**0.7922**	0.7584	**0.7894**
glass2	0.6231	**0.6976**	0.7066	**0.7636**	yeast3	0.9699	**0.9703**	0.9306	**0.9318**
glass4	0.9373	**0.9623**	0.9408	**0.9773**	yeast4	0.8897	**0.8930**	**0.8746**	0.8591
glass5	**0.9976**	0.9756	**0.9975**	0.9850	yeast5	0.9901	0.9901	0.9828	**0.9850**
glass6	0.9036	**0.9553**	0.8981	**0.9331**	yeast6	0.9304	**0.9441**	0.9146	0.9146
haberman	**0.6629**	0.6530	**0.6945**	0.6762	zoo3	**0.9053**	0.7579	**0.9480**	0.8567
iris0	1.0000	1.0000	1.0000	1.0000	**Sonar**	0.6958	**0.7329**	0.6825	**0.7200**
krvskonevsfteen	1.0000	1.0000	1.0000	1.0000	**Bupa**	**0.7676**	0.7655	0.7273	**0.7492**
krvskthreevseleven	1.0000	1.0000	**1.0000**	0.9998	**Iono**	0.9337	**0.9464**	0.9048	**0.9079**
krvskzeroonevsdraw	0.9987	0.9987	**0.9970**	0.9966	**Vert2**	0.9012	**0.9048**	**0.8873**	0.8703
krvskzerovseight	1.0000	1.0000	1.0000	1.0000	**Park**	0.7566	**0.8040**	0.7359	**0.7993**