Pathophysiological Group   Functional Group

Whole Set Prediction of Poor CGI at 12-Months

No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity	No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity
1	Self-Normalising*	20	0.61	0.57	0.51	0.66	1	Self-Normalising*	20	0.72	0.69	0.65	0.75
1	Self-Normalising*	80	0.65	0.57	0.43	0.83	1	Self-Normalising*	80	0.52	0.51	0.36	0.76
1	Leaky ReLU	20	0.63	0.64	0.69	0.55	**1**	**Leaky ReLU**	**20**	**0.73**	**0.73**	**0.81**	**0.59**
1	Leaky ReLU	80	0.65	0.66	0.74	0.49	1	Leaky ReLU	80	0.65	0.65	0.69	0.58
1	Hyperbolic Tan	20	0.64	0.64	0.66	0.61	1	Hyperbolic Tan	20	0.61	0.55	0.44	0.74
1	Hyperbolic Tan	80	0.65	0.64	0.64	0.65	1	Hyperbolic Tan	80	0.66	0.55	0.42	0.86
3	Self-Normalising*	20	0.63	0.56	0.45	0.78	3	Self-Normalising*	20	0.63	0.52	0.37	0.88
3	Self-Normalising*	80	0.64	0.59	0.51	0.72	3	Self-Normalising*	80	0.57	0.51	0.33	0.84
3	Leaky ReLU	20	0.63	0.57	0.50	0.70	3	Leaky ReLU	20	0.68	0.71	0.79	0.52
3	Leaky ReLU	80	0.66	0.56	0.38	0.85	3	Leaky ReLU	80	0.68	0.63	0.56	0.76
3	Hyperbolic Tan	20	0.68	0.65	0.66	0.63	3	Hyperbolic Tan	20	0.66	0.66	0.73	0.57
3	Hyperbolic Tan	80	0.67	0.70	0.81	0.51	3	Hyperbolic Tan	80	0.70	0.67	0.66	0.68
5	Self-Normalising*	20	0.59	0.63	0.81	0.33	5	Self-Normalising*	20	0.53	0.51	0.40	0.71
5	Self-Normalising*	80	0.59	0.57	0.57	0.58	5	Self-Normalising*	80	0.66	0.62	0.59	0.69
5	Leaky ReLU	20	0.62	0.60	0.55	0.70	5	Leaky ReLU	20	0.46	0.63	0.88	0.17
5	Leaky ReLU	80	0.69	0.62	0.57	0.72	5	Leaky ReLU	80	0.66	0.61	0.50	0.81
5	Hyperbolic Tan	20	0.67	0.66	0.70	0.57	5	Hyperbolic Tan	20	0.66	0.63	0.62	0.67
5	**Hyperbolic Tan**	**80**	**0.70**	**0.71**	**0.81**	**0.53**	5	Hyperbolic Tan	80	0.64	0.51	0.33	0.90

Sharpe 2010 'Subjective' Feature Set Prediction of Poor CGI at 12-Months

No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity	No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity
1	**Self-Normalising***	**20**	**0.65**	**0.65**	**0.72**	**0.52**	**1**	**Self-Normalising***	**20**	**0.68**	**0.69**	**0.74**	**0.55**
1	Self-Normalising*	80	0.65	0.61	0.59	0.64	1	Self-Normalising*	80	0.67	0.58	0.45	0.82
1	Leaky ReLU	20	0.66	0.59	0.49	0.77	1	Leaky ReLU	20	0.66	0.68	0.77	0.48
1	Leaky ReLU	80	0.63	0.61	0.58	0.69	1	Leaky ReLU	80	0.70	0.64	0.59	0.74
1	Hyperbolic Tan	20	0.66	0.60	0.54	0.72	1	Hyperbolic Tan	20	0.64	0.57	0.47	0.76
1	Hyperbolic Tan	80	0.65	0.61	0.58	0.65	1	Hyperbolic Tan	80	0.64	0.62	0.61	0.63
3	Self-Normalising*	20	0.60	0.56	0.50	0.69	3	Self-Normalising*	20	0.67	0.56	0.35	0.93
3	Self-Normalising*	80	0.58	0.50	0.31	0.84	3	Self-Normalising*	80	0.62	0.58	0.55	0.65
3	Leaky ReLU	20	0.66	0.61	0.54	0.74	3	Leaky ReLU	20	0.70	0.57	0.37	0.97
3	Leaky ReLU	80	0.63	0.57	0.43	0.80	3	Leaky ReLU	80	0.66	0.62	0.54	0.80
3	Hyperbolic Tan	20	0.68	0.63	0.57	0.72	3	Hyperbolic Tan	20	0.63	0.56	0.45	0.84
3	Hyperbolic Tan	80	0.63	0.60	0.61	0.59	3	Hyperbolic Tan	80	0.63	0.51	0.31	0.93
5	Self-Normalising*	20	0.55	0.59	0.69	0.41	5	Self-Normalising*	20	0.59	0.52	0.38	0.80
5	Self-Normalising*	80	0.56	0.47	0.26	0.85	5	Self-Normalising*	80	0.59	0.55	0.47	0.70
5	Leaky ReLU	20	0.56	0.51	0.39	0.75	5	Leaky ReLU	20	0.57	0.47	0.29	0.85
5	Leaky ReLU	80	0.60	0.52	0.40	0.74	5	Leaky ReLU	80	0.54	0.43	0.20	0.91
5	Hyperbolic Tan	20	0.64	0.61	0.59	0.64	5	Hyperbolic Tan	20	0.67	0.58	0.48	0.79
5	Hyperbolic Tan	80	0.61	0.64	0.73	0.46	5	Hyperbolic Tan	80	0.65	0.60	0.57	0.66

Univariate Reduced 'Objective' Feature Set Prediction of Poor CGI at 12-Months

No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity	No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity
1	Self-Normalising*	20	0.57	0.54	0.50	0.62	1	Self-Normalising*	20	0.68	0.60	0.40	0.93
1	Self-Normalising*	80	0.65	0.60	0.51	0.76	1	Self-Normalising*	80	0.70	0.66	0.63	0.72
1	Leaky ReLU	20	0.67	0.66	0.72	0.54	1	Leaky ReLU	20	0.67	0.61	0.47	0.88
1	Leaky ReLU	80	0.68	0.62	0.53	0.79	1	Leaky ReLU	80	0.70	0.60	0.47	0.91
1	Hyperbolic Tan	20	0.65	0.65	0.69	0.56	1	Hyperbolic Tan	20	0.62	0.58	0.50	0.75
1	Hyperbolic Tan	80	0.61	0.58	0.53	0.67	1	Hyperbolic Tan	80	0.66	0.63	0.56	0.74
3	Self-Normalising*	20	0.63	0.54	0.36	0.87	3	Self-Normalising*	20	0.64	0.60	0.47	0.85
3	**Self-Normalising***	**80**	**0.70**	**0.69**	**0.77**	**0.55**	3	Self-Normalising*	80	0.64	0.56	0.42	0.81
3	Leaky ReLU	20	0.69	0.63	0.62	0.67	3	Leaky ReLU	20	0.64	0.59	0.45	0.83
3	Leaky ReLU	80	0.67	0.59	0.50	0.78	3	Leaky ReLU	80	0.68	0.57	0.40	0.94
3	Hyperbolic Tan	20	0.68	0.64	0.64	0.64	3	Hyperbolic Tan	20	0.70	0.64	0.61	0.72
3	Hyperbolic Tan	80	0.63	0.63	0.63	0.61	3	Hyperbolic Tan	80	0.62	0.57	0.43	0.84
5	Self-Normalising*	20	0.59	0.58	0.54	0.64	5	Self-Normalising*	20	0.58	0.46	0.28	0.84
5	Self-Normalising*	80	0.63	0.64	0.70	0.51	**5**	**Self-Normalising***	**80**	**0.55**	**0.68**	**0.83**	**0.32**
5	Leaky ReLU	20	0.62	0.62	0.68	0.49	5	Leaky ReLU	20	0.61	0.58	0.50	0.76
5	Leaky ReLU	80	0.67	0.63	0.61	0.66	5	Leaky ReLU	80	0.64	0.61	0.52	0.79
5	Hyperbolic Tan	20	0.67	0.63	0.56	0.74	5	Hyperbolic Tan	20	0.71	0.63	0.56	0.78
5	Hyperbolic Tan	80	0.67	0.61	0.55	0.73	5	Hyperbolic Tan	80	0.67	0.55	0.39	0.89

Whole T0 + T1 Set Prediction of Poor CGI at 12-Months

No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity	No. of Hidden Layers	Activation Function	No. of Units in Hidden Layers	AUROC	Accuracy	Sensitivity	Specificity
1	Self-Normalising*	20	0.66	0.64	0.73	0.51	1	Self-Normalising*	20	0.58	0.57	0.56	0.59
1	Self-Normalising*	80	0.69	0.68	0.76	0.56	1	Self-Normalising*	80	0.53	0.58	0.58	0.57
1	Leaky ReLU	20	0.70	0.65	0.61	0.70	1	Leaky ReLU	20	0.58	0.70	0.95	0.23
1	Leaky ReLU	80	0.69	0.68	0.70	0.64	**1**	**Leaky ReLU**	**80**	**0.73**	**0.73**	**0.83**	**0.58**
1	Hyperbolic Tan	20	0.67	0.60	0.54	0.73	1	Hyperbolic Tan	20	0.68	0.70	0.77	0.55
1	Hyperbolic Tan	80	0.71	0.67	0.65	0.69	1	Hyperbolic Tan	80	0.73	0.70	0.70	0.70
3	Self-Normalising*	20	0.70	0.63	0.54	0.76	3	Self-Normalising*	20	0.69	0.58	0.42	0.88
3	Self-Normalising*	80	0.66	0.64	0.67	0.59	3	Self-Normalising*	80	0.58	0.58	0.55	0.63
3	Leaky ReLU	20	0.68	0.65	0.66	0.63	3	Leaky ReLU	20	0.71	0.63	0.51	0.85
3	Leaky ReLU	80	0.66	0.63	0.54	0.77	3	Leaky ReLU	80	0.67	0.57	0.40	0.90
3	Hyperbolic Tan	20	0.68	0.59	0.45	0.83	3	Hyperbolic Tan	20	0.73	0.70	0.69	0.71
3	Hyperbolic Tan	80	0.64	0.59	0.52	0.70	3	Hyperbolic Tan	80	0.69	0.62	0.51	0.81
5	Self-Normalising*	20	0.61	0.54	0.35	0.81	5	Self-Normalising*	20	0.71	0.71	0.68	0.75
5	Self-Normalising*	80	0.57	0.53	0.39	0.78	5	Self-Normalising*	80	0.67	0.59	0.42	0.85
5	Leaky ReLU	20	0.71	0.65	0.60	0.76	5	Leaky ReLU	20	0.54	0.44	0.21	0.90
5	Leaky ReLU	80	0.69	0.62	0.52	0.78	5	Leaky ReLU	80	0.77	0.72	0.67	0.82
5	**Hyperbolic Tan**	**20**	**0.72**	**0.68**	**0.68**	**0.69**	5	Hyperbolic Tan	20	0.51	0.53	0.41	0.70
5	Hyperbolic Tan	80	0.71	0.65	0.60	0.73	5	Hyperbolic Tan	80	0.54	0.57	0.70	0.40