

Supplementary Files

A Hybrid Geometric Morphometric Deep Learning Approach for Cut and Trampling Mark Classification

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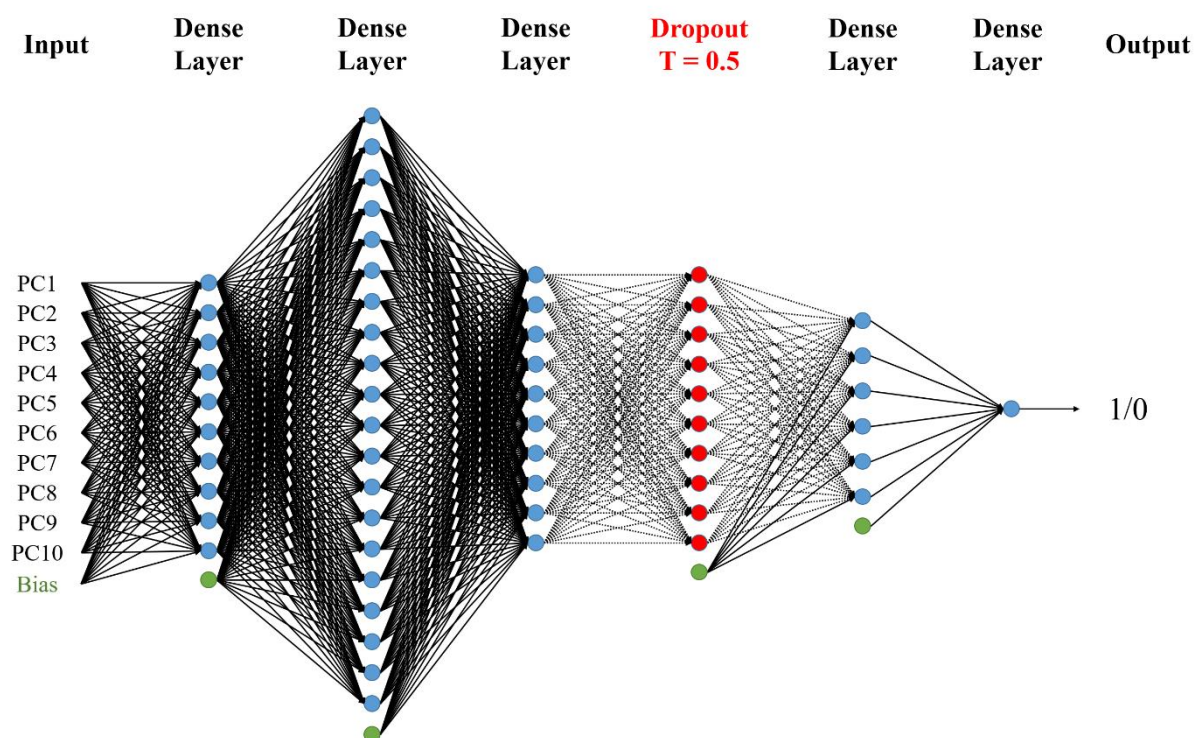
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Supplementary Figure 1 - Visualization of the Neural Network Architecture. Bias neurons are represented in green, hidden neurons in blue and the dropout layer in red.

Supplemental table 1 – Accuracy and Loss Results from 30 prediction iterations on training, validation and test data.

Accuracy			Loss		
Training	Validation	Testing	Training	Validation	Testing
99.29	99.50	99.00	0.13	0.03	0.01
100.00	100.00	100.00	0.05	0.00	0.01
98.86	98.58	100.00	0.07	0.06	0.01
100.00	100.00	100.00	0.07	0.01	0.00
100.00	100.00	100.00	0.03	0.00	0.00
98.57	98.58	99.33	0.07	0.05	0.00
100.00	100.00	100.00	0.09	0.00	0.02
98.71	97.63	99.00	0.08	0.09	0.00
98.43	98.58	99.67	0.05	0.02	0.01
100.00	100.00	100.00	0.03	0.00	0.02
100.00	100.00	100.00	0.05	0.01	0.00
99.71	100.00	98.00	0.11	0.01	0.01
100.00	100.00	100.00	0.05	0.02	0.01
98.86	99.53	98.76	0.09	0.03	0.01
100.00	100.00	100.00	0.03	0.00	0.01
99.29	98.10	99.00	0.08	0.08	0.00
100.00	100.00	98.00	0.03	0.01	0.00
99.00	99.52	98.33	0.10	0.03	0.02
100.00	100.00	100.00	0.05	0.02	0.01
100.00	100.00	100.00	0.04	0.00	0.00
99.00	99.52	99.96	0.05	0.02	0.01
100.00	100.00	100.00	0.03	0.00	0.00
100.00	100.00	100.00	0.03	0.00	0.02
100.00	100.00	100.00	0.03	0.00	0.00
100.00	100.00	100.00	0.04	0.01	0.01
100.00	99.39	100.00	0.02	0.00	0.01
98.71	97.63	99.00	0.00	0.08	0.00
100.00	100.00	100.00	0.02	0.00	0.00
100.00	100.00	100.00	0.03	0.00	0.00
98.43	98.58	99.67	0.09	0.06	0.01

Supplemental table 2 – Results from 30 prediction iterations on test data

Sensitivity	Specificity	AUC	Kappa
1.000	1.000	1.000	1.000
1.000	0.995	0.9999	0.992
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	0.995	0.9999	0.992
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	0.995	0.9999	0.992
1.000	0.995	0.9999	0.992
1.000	0.995	0.9999	0.992
1.000	0.995	0.9999	0.992
1.000	1.000	1.000	1.000
1.000	0.999	0.9999	0.990
1.000	0.999	0.9999	0.990
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	0.995	0.9999	0.992
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000
1.000	0.995	0.9999	0.992
1.000	1.000	1.000	1.000
1.000	1.000	1.000	1.000