**Acceleration of failure mode identification and shear strength prediction for RHRC columns using machine learning**

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**Fig. S-1.** Synthetic database of FMs classification.

Chart

Description automatically generated with medium confidenceGraphical user interface, application

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Graphical user interface, application

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**Fig. S-2.** Performance of ML models.

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Description automatically generated with medium confidence

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Graphical user interface, text

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**Fig. S-3.** ROC curves of the classification ML models for training set.