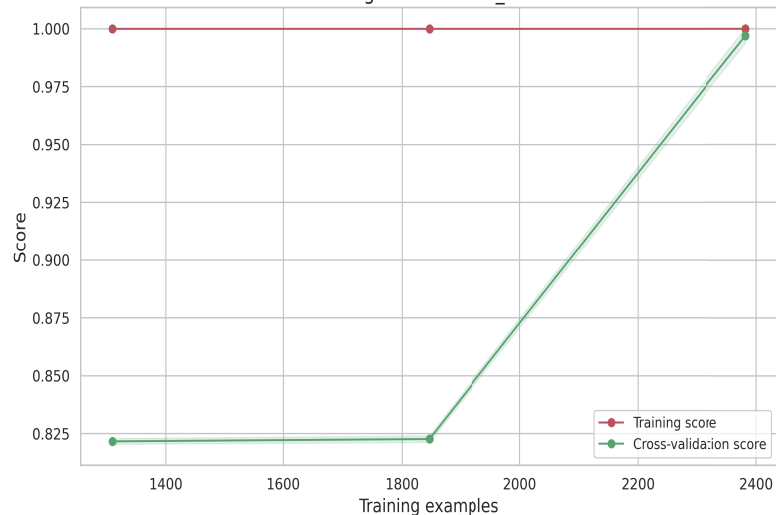
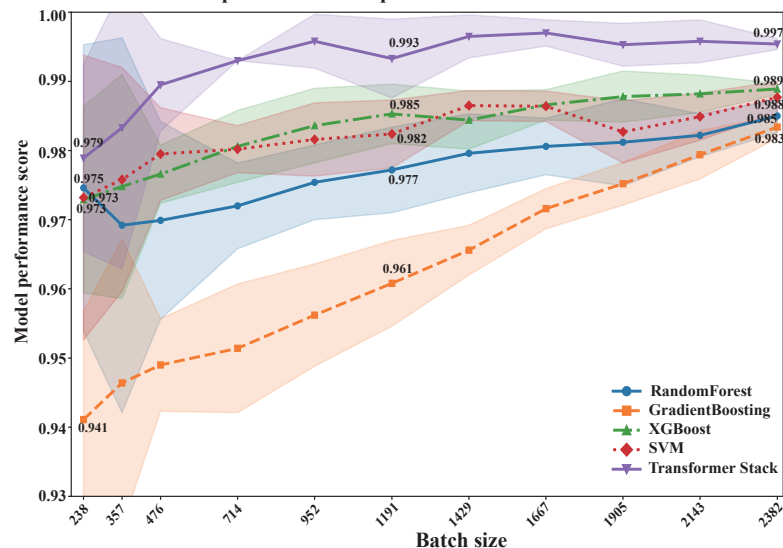


a

Learning Curve - stack_model

**b**

Comparison of model performance under different batch sizes



Supplementary Fig 2. Learning rate curve and changes in training data across different batches.

a. The x-axis represents the number of training epochs, while the y-axis shows both training and validation metrics (typically loss and accuracy). This visualization is crucial for understanding the model's learning dynamics, identifying potential overfitting, and validating the effectiveness of our learning rate schedule and early stopping criteria. The curve typically shows how the model's performance improves over time and eventually stabilizes, demonstrating the effectiveness of our training strategy and the model's convergence characteristics. b. Test batch sizes with finer granularity at 10%, 15%, 20%, 30%, 40%, 50%, 60%, 70%, 80%, 90%, and 100% to ensure sufficient data points to identify the inflection point of performance improvement.