

Data
(pre-process)
quality check

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graph LR; A["Data (pre-process) quality check"] --> B["Build GCN and GAT for binary classification<br/>(1) normal vs. COVID-19<br/>(2) mild vs. severe"]; B --> C["Perform 5-Fold Cross Validation<br/>Train Test Set 3:1 Split"]; C --> D["Performance Evaluation<br/>• Accuracy<br/>• F1 score<br/>• AUC-ROC<br/>XAI Interpretation using the top 15 features"];
```

Build GCN and GAT
for binary classification

(1) normal vs. COVID-19
(2) mild vs. severe

**Perform 5-Fold Cross
Validation**

Train Test Set 3:1 Split

Performance Evaluation

- Accuracy
- F1 score
- AUC-ROC

XAI Interpretation
using the top 15 features