Significance Test Results for AUC:

DSAE\_RF vs MGMDA: p-value = 0.01257935675131264

DSAE\_RF vs GPUDMDA: p-value = 0.11757795460043659

DSAE\_RF vs KGNMDA: p-value = 0.18006234437070967

DSAE\_RF vs SAELGMDA: p-value = 0.1834516100692465

MGMDA vs DSAE\_RF: p-value = 0.01257935675131264

MGMDA vs GPUDMDA: p-value = 0.5022335042690794

MGMDA vs KGNMDA: p-value = 0.0045601963610730975

MGMDA vs SAELGMDA: p-value = 0.1262209533469261

GPUDMDA vs DSAE\_RF: p-value = 0.11757795460043659

GPUDMDA vs MGMDA: p-value = 0.5022335042690794

GPUDMDA vs KGNMDA: p-value = 0.06874405153598201

GPUDMDA vs SAELGMDA: p-value = 0.16013674587598084

KGNMDA vs DSAE\_RF: p-value = 0.18006234437070967

KGNMDA vs MGMDA: p-value = 0.0045601963610730975

KGNMDA vs GPUDMDA: p-value = 0.06874405153598201

KGNMDA vs SAELGMDA: p-value = 0.2700564329881068

SAELGMDA vs DSAE\_RF: p-value = 0.1834516100692465

SAELGMDA vs MGMDA: p-value = 0.1262209533469261

SAELGMDA vs GPUDMDA: p-value = 0.16013674587598084

SAELGMDA vs KGNMDA: p-value = 0.2700564329881068

Confidence Intervals for AUC:

DSAE\_RF: Mean = 0.93 ± 0.01 (95% CI: 0.92-0.93)

MGMDA: Mean = 0.96 ± 0.02 (95% CI: 0.94-0.98)

GPUDMDA: Mean = 0.95 ± 0.03 (95% CI: 0.92-0.98)

KGNMDA: Mean = 0.91 ± 0.03 (95% CI: 0.88-0.94)

SAELGMDA: Mean = 0.81 ± 0.20 (95% CI: 0.61-1.01)

Significance Test Results for AUPR:

DSAE\_RF vs MGMDA: p-value = 0.005131583998888458

DSAE\_RF vs GPUDMDA: p-value = 0.07618572632779097

DSAE\_RF vs KGNMDA: p-value = 0.7082059433499399

DSAE\_RF vs SAELGMDA: p-value = 9.061374325637343e-05

MGMDA vs DSAE\_RF: p-value = 0.005131583998888458

MGMDA vs GPUDMDA: p-value = 0.024363287630859706

MGMDA vs KGNMDA: p-value = 0.005283942516377987

MGMDA vs SAELGMDA: p-value = 0.00011557276155764901

GPUDMDA vs DSAE\_RF: p-value = 0.07618572632779097

GPUDMDA vs MGMDA: p-value = 0.024363287630859706

GPUDMDA vs KGNMDA: p-value = 0.07690978772968787

GPUDMDA vs SAELGMDA: p-value = 0.00041009662351091124

KGNMDA vs DSAE\_RF: p-value = 0.7082059433499399

KGNMDA vs MGMDA: p-value = 0.005283942516377987

KGNMDA vs GPUDMDA: p-value = 0.07690978772968787

KGNMDA vs SAELGMDA: p-value = 0.00015129504990515273

SAELGMDA vs DSAE\_RF: p-value = 9.061374325637343e-05

SAELGMDA vs MGMDA: p-value = 0.00011557276155764901

SAELGMDA vs GPUDMDA: p-value = 0.00041009662351091124

SAELGMDA vs KGNMDA: p-value = 0.00015129504990515273

Confidence Intervals for AUPR:

DSAE\_RF: Mean = 0.92 ± 0.01 (95% CI: 0.91-0.94)

MGMDA: Mean = 0.96 ± 0.02 (95% CI: 0.94-0.98)

GPUDMDA: Mean = 0.85 ± 0.08 (95% CI: 0.76-0.93)

KGNMDA: Mean = 0.92 ± 0.03 (95% CI: 0.89-0.95)

SAELGMDA: Mean = 0.20 ± 0.13 (95% CI: 0.07-0.33)

Significance Test Results for F1:

DSAE\_RF vs MGMDA: p-value = 0.023683498669580336

DSAE\_RF vs GPUDMDA: p-value = 6.406032254579787e-05

DSAE\_RF vs KGNMDA: p-value = 0.6635229256523157

DSAE\_RF vs SAELGMDA: p-value = 3.4503203033503765e-05

MGMDA vs DSAE\_RF: p-value = 0.023683498669580336

MGMDA vs GPUDMDA: p-value = 5.853758129614102e-05

MGMDA vs KGNMDA: p-value = 0.00289383144464528

MGMDA vs SAELGMDA: p-value = 6.470549026136453e-05

GPUDMDA vs DSAE\_RF: p-value = 6.406032254579787e-05

GPUDMDA vs MGMDA: p-value = 5.853758129614102e-05

GPUDMDA vs KGNMDA: p-value = 7.103917186017499e-05

GPUDMDA vs SAELGMDA: p-value = 0.0732625898378222

KGNMDA vs DSAE\_RF: p-value = 0.6635229256523157

KGNMDA vs MGMDA: p-value = 0.00289383144464528

KGNMDA vs GPUDMDA: p-value = 7.103917186017499e-05

KGNMDA vs SAELGMDA: p-value = 6.59775357441661e-05

SAELGMDA vs DSAE\_RF: p-value = 3.4503203033503765e-05

SAELGMDA vs MGMDA: p-value = 6.470549026136453e-05

SAELGMDA vs GPUDMDA: p-value = 0.0732625898378222

SAELGMDA vs KGNMDA: p-value = 6.59775357441661e-05

Confidence Intervals for F1:

DSAE\_RF: Mean = 0.84 ± 0.02 (95% CI: 0.83-0.86)

MGMDA: Mean = 0.88 ± 0.03 (95% CI: 0.85-0.90)

GPUDMDA: Mean = 0.20 ± 0.11 (95% CI: 0.09-0.31)

KGNMDA: Mean = 0.84 ± 0.03 (95% CI: 0.81-0.87)

SAELGMDA: Mean = 0.12 ± 0.11 (95% CI: 0.02-0.23)

Significance Test Results for Accuracy:

DSAE\_RF vs MGMDA: p-value = 0.027461624970163922

DSAE\_RF vs GPUDMDA: p-value = 0.039715436923148155

DSAE\_RF vs KGNMDA: p-value = 0.7177381695245936

DSAE\_RF vs SAELGMDA: p-value = 0.044749910374865164

MGMDA vs DSAE\_RF: p-value = 0.027461624970163922

MGMDA vs GPUDMDA: p-value = 0.02990719633290791

MGMDA vs KGNMDA: p-value = 0.03071531397435488

MGMDA vs SAELGMDA: p-value = 0.22900489741334404

GPUDMDA vs DSAE\_RF: p-value = 0.039715436923148155

GPUDMDA vs MGMDA: p-value = 0.02990719633290791

GPUDMDA vs KGNMDA: p-value = 0.036160360729289576

GPUDMDA vs SAELGMDA: p-value = 0.0163281352019005

KGNMDA vs DSAE\_RF: p-value = 0.7177381695245936

KGNMDA vs MGMDA: p-value = 0.03071531397435488

KGNMDA vs GPUDMDA: p-value = 0.036160360729289576

KGNMDA vs SAELGMDA: p-value = 0.04400590594289431

SAELGMDA vs DSAE\_RF: p-value = 0.044749910374865164

SAELGMDA vs MGMDA: p-value = 0.22900489741334404

SAELGMDA vs GPUDMDA: p-value = 0.0163281352019005

SAELGMDA vs KGNMDA: p-value = 0.04400590594289431

Confidence Intervals for Accuracy:

DSAE\_RF: Mean = 0.84 ± 0.01 (95% CI: 0.83-0.85)

MGMDA: Mean = 0.88 ± 0.03 (95% CI: 0.85-0.91)

GPUDMDA: Mean = 0.55 ± 0.28 (95% CI: 0.27-0.83)

KGNMDA: Mean = 0.84 ± 0.03 (95% CI: 0.81-0.87)

SAELGMDA: Mean = 0.93 ± 0.09 (95% CI: 0.85-1.02)

Table with Confidence Intervals:

Model Metric Mean ± Margin (95% CI)

0 DSAE\_RF AUC 0.93 ± 0.01 (95% CI: 0.92-0.93)

1 MGMDA AUC 0.96 ± 0.02 (95% CI: 0.94-0.98)

2 GPUDMDA AUC 0.95 ± 0.03 (95% CI: 0.92-0.98)

3 KGNMDA AUC 0.91 ± 0.03 (95% CI: 0.88-0.94)

4 SAELGMDA AUC 0.81 ± 0.20 (95% CI: 0.61-1.01)

5 DSAE\_RF AUPR 0.92 ± 0.01 (95% CI: 0.91-0.94)

6 MGMDA AUPR 0.96 ± 0.02 (95% CI: 0.94-0.98)

7 GPUDMDA AUPR 0.85 ± 0.08 (95% CI: 0.76-0.93)

8 KGNMDA AUPR 0.92 ± 0.03 (95% CI: 0.89-0.95)

9 SAELGMDA AUPR 0.20 ± 0.13 (95% CI: 0.07-0.33)

10 DSAE\_RF F1 0.84 ± 0.02 (95% CI: 0.83-0.86)

11 MGMDA F1 0.88 ± 0.03 (95% CI: 0.85-0.90)

12 GPUDMDA F1 0.20 ± 0.11 (95% CI: 0.09-0.31)

13 KGNMDA F1 0.84 ± 0.03 (95% CI: 0.81-0.87)

14 SAELGMDA F1 0.12 ± 0.11 (95% CI: 0.02-0.23)

15 DSAE\_RF Accuracy 0.84 ± 0.01 (95% CI: 0.83-0.85)

16 MGMDA Accuracy 0.88 ± 0.03 (95% CI: 0.85-0.91)

17 GPUDMDA Accuracy 0.55 ± 0.28 (95% CI: 0.27-0.83)

18 KGNMDA Accuracy 0.84 ± 0.03 (95% CI: 0.81-0.87)

19 SAELGMDA Accuracy 0.93 ± 0.09 (95% CI: 0.85-1.02)