1. Montreal

Accuracy: 0.613922220615874

Prediction time: 0.003711223602294922 seconds

Precision: 0.7040467976017203

Recall: 0.613922220615874

F1 score: 0.5659992234701001

Tuned:

Best parameters: {'n\_estimators': 1100, 'learning\_rate': 0.05, 'booster': 'gblinear', 'base\_score': 0.5}

Accuracy: 0.6656064767962989

Prediction time: 0.002321958541870117 seconds

Precision: 0.6657065694071497

Recall: 0.6656064767962989

F1 score: 0.6655559728000097

1. Padua

Accuracy: 0.7260155574762316

Prediction time: 0.006606101989746094 seconds

Precision: 0.7759070204316127

Recall: 0.7260155574762316

F1 score: 0.7130431653043932

Tuned:

Best parameters: {'n\_estimators': 100, 'min\_child\_weight': 1, 'max\_depth': 3, 'learning\_rate': 0.05, 'booster': 'gbtree', 'base\_score': 0.5}

Accuracy: 0.7862699098654155

Prediction time: 0.0023071765899658203 seconds

Precision: 0.7912208480122843

Recall: 0.7862699098654155

F1 score: 0.7853576460065838

1. Princeton

Best parameters: {'n\_estimators': 1100, 'learning\_rate': 0.2, 'booster': 'gblinear', 'base\_score': 0.25}

Accuracy: 0.4490364446775039

Prediction time: 0.006188154220581055 seconds

Precision: 0.28569849651602014

Recall: 0.4490364446775039

F1 score: 0.31933850773946376

Tuned:

Accuracy: 0.5048833245936025

Prediction time: 0.007651090621948242 seconds

Precision: 0.5309544744765682

Recall: 0.5048833245936025

F1 score: 0.3728251097157228