# **Student Dropout Prediction Report**

Generated on: September 15, 2025

Model Version: v2

## **Executive Summary**

This report analyzes 1000 students for dropout risk using machine learning.

#### **Key Findings:**

- 260 students (26.0%) are at HIGH risk of dropping out
- 4 students (0.4%) are at MEDIUM risk
- 736 students (73.6%) are at LOW risk
- Average dropout probability: 26.5%

#### **Risk Distribution**

| Risk Level  | Count | Percentage |
|-------------|-------|------------|
| High Risk   | 260   | 26.0%      |
| Medium Risk | 4     | 0.4%       |
| Low Risk    | 736   | 73.6%      |
| Total       | 1000  | 100.0%     |

### **Model Performance**

| Metric    | Value |  |
|-----------|-------|--|
| Accuracy  | 0.987 |  |
| Precision | 0.974 |  |
| Recall    | 0.974 |  |
| F1-Score  | 0.974 |  |
| ROC-AUC   | 1.000 |  |

## **High-Risk Students**

| Student ID | Name | Probability | Attendance % | Performance % |
|------------|------|-------------|--------------|---------------|
|            |      |             |              |               |

| STU_0008 | Student 8  | 99.6%  | 51.5235159264094%   | 55.38185682166997%  |
|----------|------------|--------|---------------------|---------------------|
| STU_0013 | Student 13 | 100.0% | 44.42700418783465%  | 37.03964551237768%  |
| STU_0014 | Student 14 | 100.0% | 45.948838061329%    | 18.042987840696743% |
| STU_0015 | Student 15 | 100.0% | 31.471470568666252% | 49.63957353969639%  |
| STU_0022 | Student 22 | 100.0% | 41.80157034102013%  | 7.310102801282893%  |
| STU_0027 | Student 27 | 100.0% | 38.2786531937463%   | 25.065106012059008% |
| STU_0032 | Student 32 | 99.9%  | 56.78631679474163%  | 46.36933889591708%  |
| STU_0033 | Student 33 | 99.6%  | 47.77900384705188%  | 41.85399144110041%  |
| STU_0036 | Student 36 | 99.9%  | 46.91905533874567%  | 35.9951980687556%   |
| STU_0040 | Student 40 | 100.0% | 56.68167949837925%  | 36.54547404651795%  |
| STU_0043 | Student 43 | 100.0% | 52.12789966176281%  | 35.81415570233392%  |
| STU_0045 | Student 45 | 99.4%  | 63.281828083649074% | 29.73045606662433%  |
| STU_0051 | Student 51 | 99.2%  | 53.85520916178243%  | 42.364493577281785% |
| STU_0052 | Student 52 | 99.4%  | 38.08359715384717%  | 59.76147699786686%  |
| STU_0054 | Student 54 | 100.0% | 45.88437283743776%  | 10.699369589372653% |
| STU_0056 | Student 56 | 99.7%  | 52.62961441852721%  | 44.53997903595697%  |
| STU_0061 | Student 61 | 100.0% | 38.1657750311452%   | 54.5075720859649%   |
| STU_0062 | Student 62 | 99.9%  | 49.105150530154425% | 43.31301154460305%  |
| STU_0068 | Student 68 | 99.4%  | 41.08219187016026%  | 60.6775613092277%   |
| STU_0069 | Student 69 | 100.0% | 46.46804617295825%  | 4.904626350230446%  |
|          |            |        |                     |                     |