# All variables without tuition with\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.9033057851239669 | 0.9044857886687019 | 0.9033057851239669 | 0.9022504752972083 | 210.2 | 117.7 | 24.4 | 10.7 |
| LightGBM | 0.9005509641873278 | 0.901507456759959 | 0.9005509641873278 | 0.8995899653084244 | 209.1 | 117.8 | 24.3 | 11.8 |

# All variables\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.9115702479338841 | 0.9128224278295723 | 0.9115702479338841 | 0.9106280735782921 | 211.7 | 119.2 | 22.9 | 9.2 |
| LightGBM | 0.9110192837465565 | 0.9121520949289321 | 0.9110192837465565 | 0.9101098326714023 | 211.2 | 119.5 | 22.6 | 9.7 |

# Before 1st sem without tuition\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.7239669421487602 | 0.7230019698031925 | 0.7239669421487602 | 0.7143325515584248 | 185.9 | 76.9 | 65.2 | 35.0 |
| LightGBM | 0.7606060606060606 | 0.7597953509291424 | 0.7606060606060606 | 0.7577348917220179 | 184.0 | 92.1 | 50.0 | 36.9 |

# Before 1st sem\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.7548209366391185 | 0.7596885878811692 | 0.7548209366391185 | 0.7439024601770136 | 195.9 | 78.1 | 64.0 | 25.0 |
| LightGBM | 0.7870523415977961 | 0.7862886492881731 | 0.7870523415977961 | 0.7832676123203658 | 192.0 | 93.7 | 48.4 | 28.9 |

# Before 2nd sem without tuition\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.8760330578512396 | 0.8766502597027046 | 0.8760330578512396 | 0.8747312434866046 | 205.1 | 112.9 | 29.2 | 15.8 |
| LightGBM | 0.8754820936639118 | 0.8763263685801709 | 0.8754820936639118 | 0.874127401684053 | 205.4 | 112.4 | 29.7 | 15.5 |

# Before 2nd sem\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.8881542699724518 | 0.8894938949206249 | 0.8881542699724518 | 0.8867375977302329 | 208.3 | 114.1 | 28.0 | 12.6 |
| LightGBM | 0.8895316804407714 | 0.8906575476256672 | 0.8895316804407714 | 0.8883477082716638 | 207.9 | 115.0 | 27.1 | 13.0 |

# During 1st sem without tuition\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.7446280991735538 | 0.7446518136695224 | 0.7446280991735538 | 0.737719644064865 | 188.2 | 82.1 | 60.0 | 32.7 |
| LightGBM | 0.7730027548209366 | 0.7721349875663966 | 0.7730027548209366 | 0.7703176406920125 | 186.4 | 94.2 | 47.9 | 34.5 |

# During 1st sem\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.7691460055096419 | 0.7724018023761483 | 0.7691460055096419 | 0.7608422551532319 | 196 | 83.2 | 58.9 | 24.9 |
| LightGBM | 0.796969696969697 | 0.796206568739594 | 0.796969696969697 | 0.7937582430116912 | 193 | 96.3 | 45.8 | 27.9 |

# During 2nd sem without tuition\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.877961432506887 | 0.8787344197087246 | 0.877961432506887 | 0.8766339395517994 | 205.6 | 113.1 | 29.0 | 15.3 |
| LightGBM | 0.8787878787878789 | 0.8801018091608025 | 0.8787878787878789 | 0.8773858443154371 | 206.3 | 112.7 | 29.4 | 14.6 |

# During 2nd sem\_cv\_2

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Model | accuracy | precision\_weighted | recall\_weighted | f1\_weighted | tp | tn | fp | fn |
| Logistic Regression | 0.8900826446280992 | 0.8913996773499051 | 0.8900826446280992 | 0.8887254761973132 | 208.5 | 114.6 | 27.5 | 12.4 |
| LightGBM | 0.8881542699724518 | 0.8888128394179855 | 0.8881542699724518 | 0.8870059506730712 | 207.4 | 115.0 | 27.1 | 13.5 |