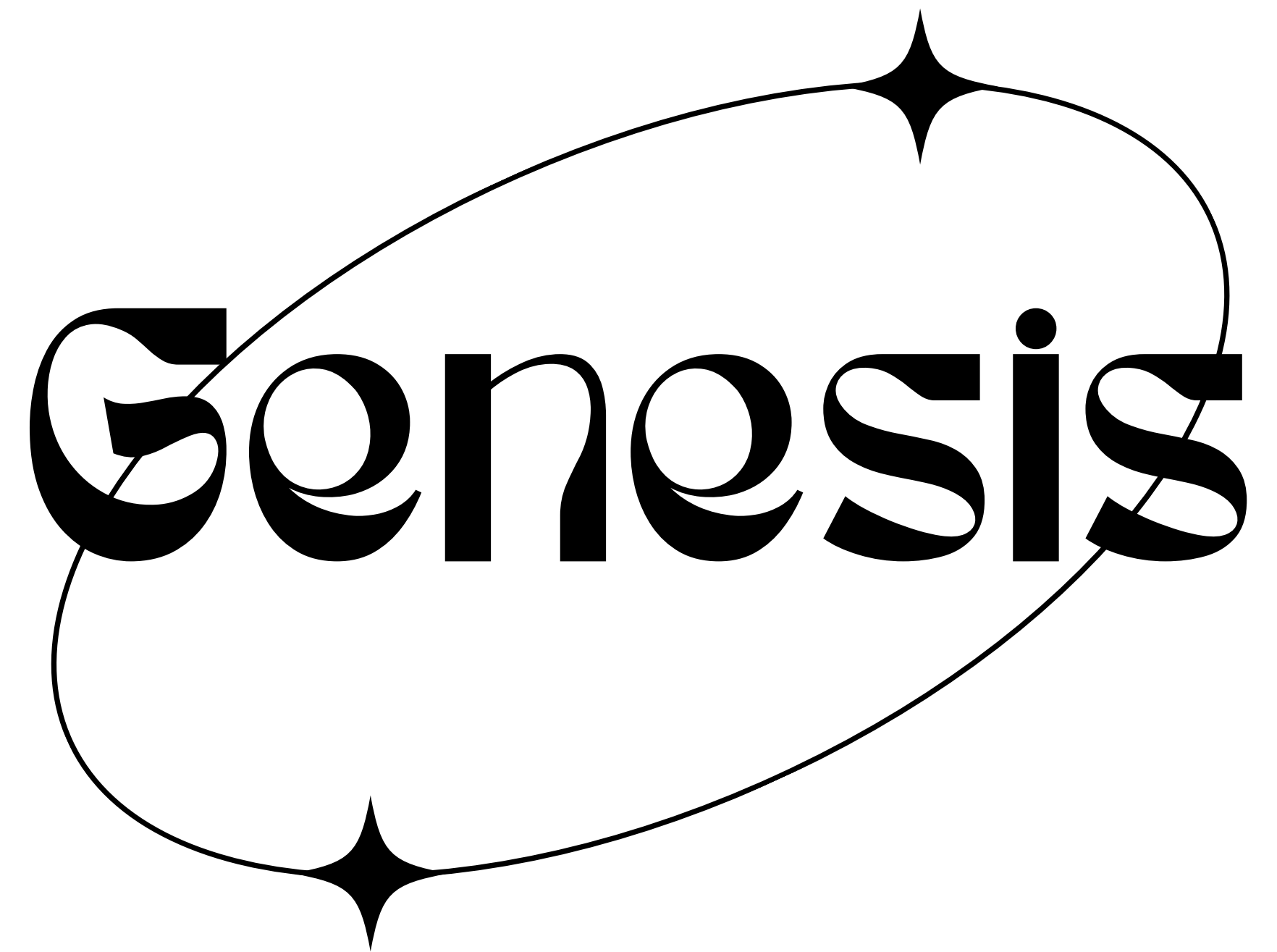


Genesis

A decorative frame consisting of two thin black curved lines that arch over and under the word "Genesis". At the top and bottom center of these arches are solid black four-pointed starburst or spark-like shapes.

RETROSPECTIVA

- **SPRINT 1**
- **SPRINT 2**

SPRINT 3

- FEATURES
- MÉTRICAS
- MODELO CANDIDATO



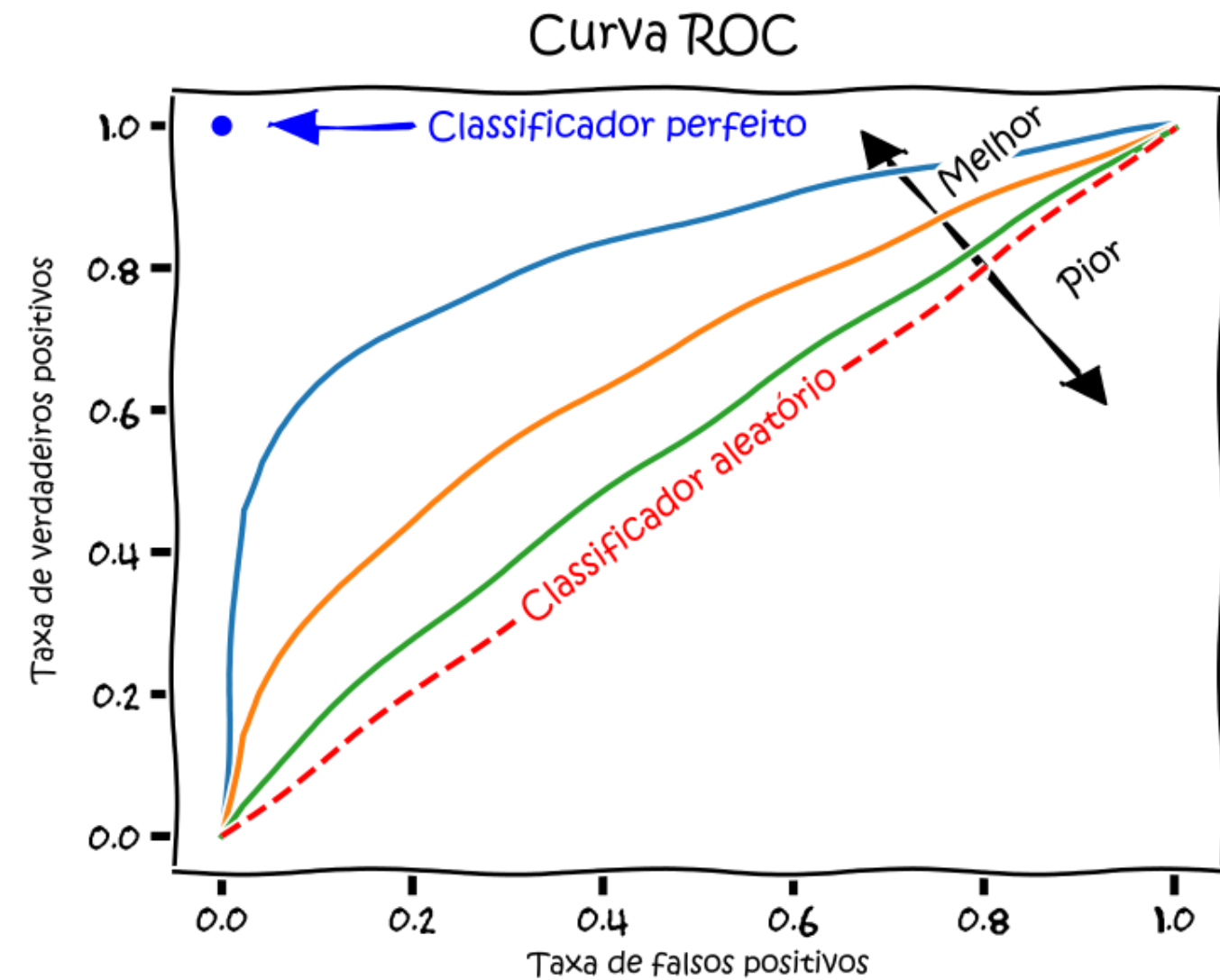
SELEÇÃO DE FEATURES

- 'IDADE_DIAGNOSTICO'
- 'PRIMEIRO_IMC'
- 'ULTIMA_INFORMACAO_PACIENTE'
- 'TEMPO_SEGUIMENTO'
- 'RECIDIVA_LOCAL'
- 'RECIDIVA_DISTANCIA'
- 'RECIDIVA_REGIONAL'
- 'SUBTIPO_TUMORAL'
- 'GRAU_HISTOLOGICO'

MÉTRICAS

CURVA ROC E AUC

- ROC → AVALIAÇÃO DA SENSIBILIDADE DO MODELO
- AUC → INDICA A CAPACIDADE DE DISTINGUIR POSITIVAS E NEGATIVAS



$$\text{Precision} = \frac{\text{True Positive}}{\text{True positive} + \text{False Positive}}$$

$$\text{Recall} = \frac{\text{True Positive}}{\text{True positive} + \text{False Negative}}$$

$$\text{F1 Score} = 2 * \frac{\text{Precision} * \text{Recall}}{\text{Precision} + \text{Recall}}$$

MODELO CANDIDATO

- MODELO NÃO SUPERVISIONADO →
SUPERVISIONADO
- ADABOOST CLASSIFIER

OUTROS MODELOS

- 28 MODELOS TESTADOS

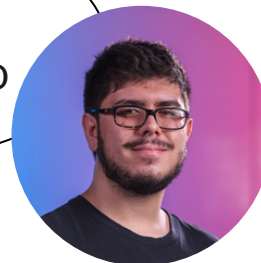
| | Accuracy | Balanced Accuracy | ROC AUC | F1 Score | Time Taken | Precision | Recalls |
|-------------------------------|----------|-------------------|---------|----------|------------|-----------|---------|
| Model | | | | | | | |
| AdaBoostClassifier | 0.68 | 0.67 | 0.67 | 0.68 | 0.59 | 0.66 | 0.63 |
| ExtraTreesClassifier | 0.67 | 0.67 | 0.67 | 0.67 | 0.50 | 0.66 | 0.62 |
| RandomForestClassifier | 0.67 | 0.66 | 0.66 | 0.67 | 1.70 | 0.65 | 0.60 |
| RidgeClassifier | 0.66 | 0.66 | 0.66 | 0.66 | 0.04 | 0.66 | 0.60 |
| LinearSVC | 0.66 | 0.66 | 0.66 | 0.66 | 0.52 | 0.47 | 0.00 |
| RidgeClassifierCV | 0.66 | 0.66 | 0.66 | 0.66 | 0.10 | 0.59 | 0.46 |
| LinearDiscriminantAnalysis | 0.66 | 0.66 | 0.66 | 0.66 | 0.16 | 0.00 | 0.00 |
| LogisticRegression | 0.66 | 0.66 | 0.66 | 0.66 | 0.09 | 0.65 | 0.62 |
| CalibratedClassifierCV | 0.66 | 0.66 | 0.66 | 0.66 | 1.36 | 0.65 | 0.59 |
| SVC | 0.66 | 0.66 | 0.66 | 0.66 | 0.81 | 0.65 | 0.60 |
| LGBMClassifier | 0.66 | 0.65 | 0.65 | 0.66 | 7.67 | 0.52 | 0.38 |
| XGBClassifier | 0.65 | 0.65 | 0.65 | 0.65 | 4.95 | 0.62 | 0.65 |
| NearestCentroid | 0.64 | 0.64 | 0.64 | 0.64 | 0.07 | 0.46 | 0.59 |
| BaggingClassifier | 0.64 | 0.64 | 0.64 | 0.64 | 0.37 | 0.47 | 0.99 |
| BernoulliNB | 0.64 | 0.64 | 0.64 | 0.64 | 0.02 | 0.64 | 0.52 |
| NuSVC | 0.62 | 0.62 | 0.62 | 0.62 | 0.80 | 0.55 | 0.47 |
| DecisionTreeClassifier | 0.61 | 0.61 | 0.61 | 0.61 | 0.08 | 0.47 | 0.00 |
| KNeighborsClassifier | 0.60 | 0.60 | 0.60 | 0.60 | 0.07 | 0.47 | 0.96 |
| SGDClassifier | 0.60 | 0.60 | 0.60 | 0.60 | 0.15 | 0.39 | 0.28 |
| Perceptron | 0.58 | 0.58 | 0.58 | 0.58 | 0.08 | 0.58 | 0.59 |
| LabelSpreading | 0.57 | 0.56 | 0.56 | 0.56 | 0.32 | 0.46 | 0.46 |
| LabelPropagation | 0.57 | 0.56 | 0.56 | 0.56 | 0.28 | 0.00 | 0.00 |
| PassiveAggressiveClassifier | 0.55 | 0.55 | 0.55 | 0.54 | 0.03 | 0.00 | 0.00 |
| ExtraTreeClassifier | 0.54 | 0.54 | 0.54 | 0.54 | 0.02 | 0.54 | 0.59 |
| GaussianNB | 0.47 | 0.50 | 0.50 | 0.31 | 0.03 | 0.57 | 0.72 |
| DummyClassifier | 0.53 | 0.50 | 0.50 | 0.37 | 0.02 | 0.00 | 0.00 |
| QuadraticDiscriminantAnalysis | 0.48 | 0.50 | 0.50 | 0.44 | 0.15 | 0.46 | 0.94 |

AGRADECEMOS

Arthur Nisa



Arthur
Tsukamoto



Eduarda
Gonzaga



Guilherme
Novaes Lima



Henrique
Godoy



Lucas Galvão



Raab lane

