

# *Student Outcome Prediction*

Team 2

Data Joining

Data Cleaning

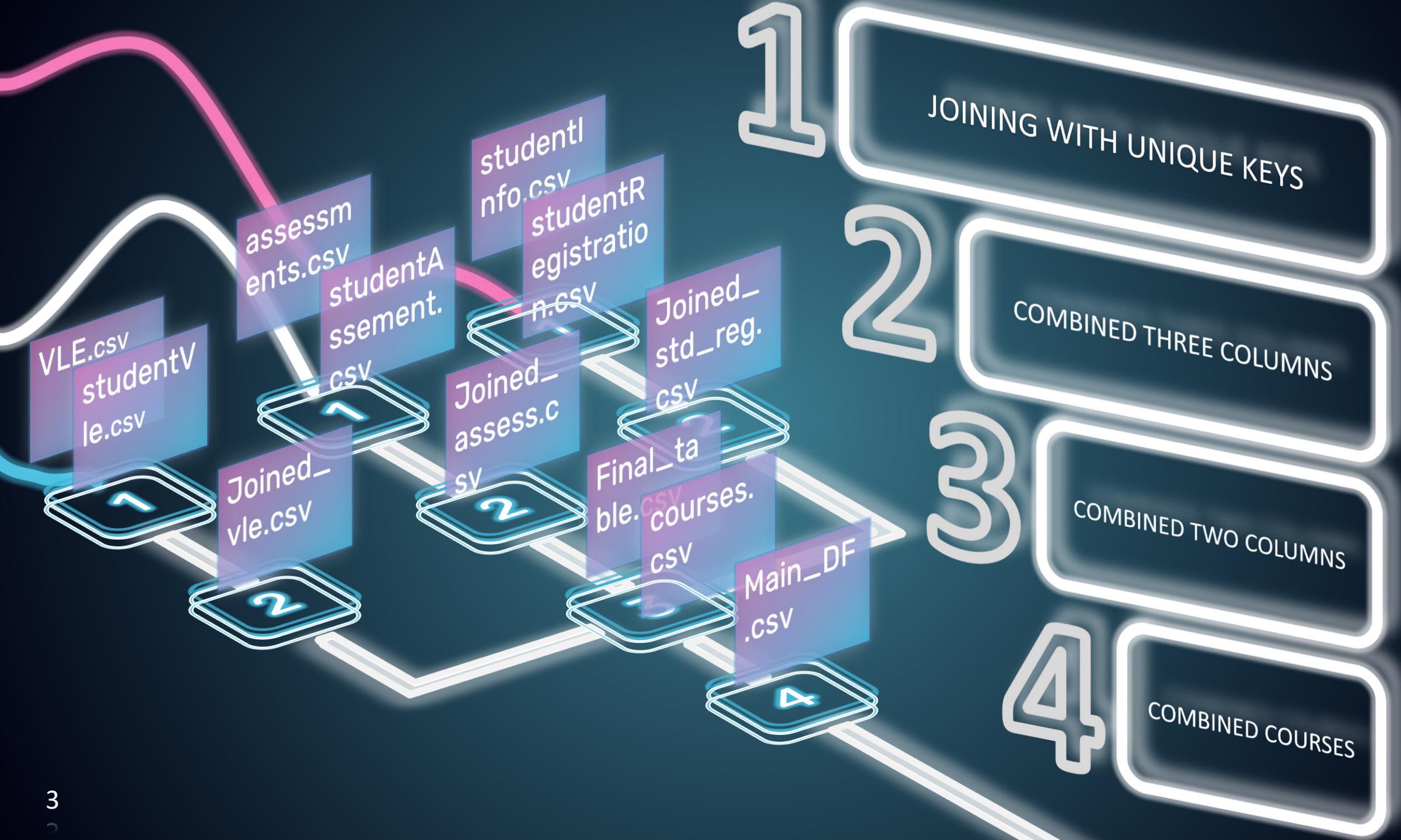
Splitting Data

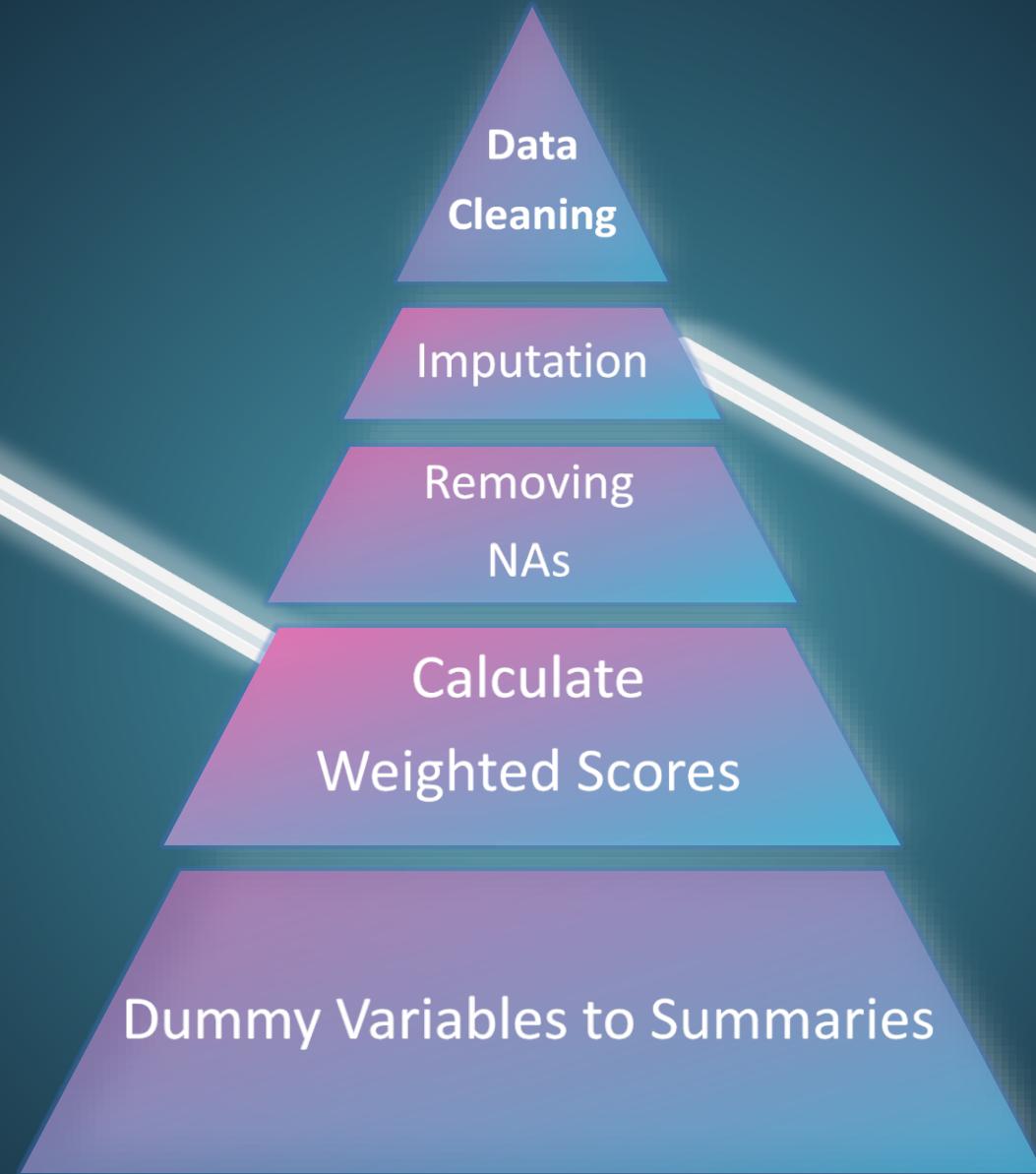
Data  
Training & Testing

Dataset Pre-processing

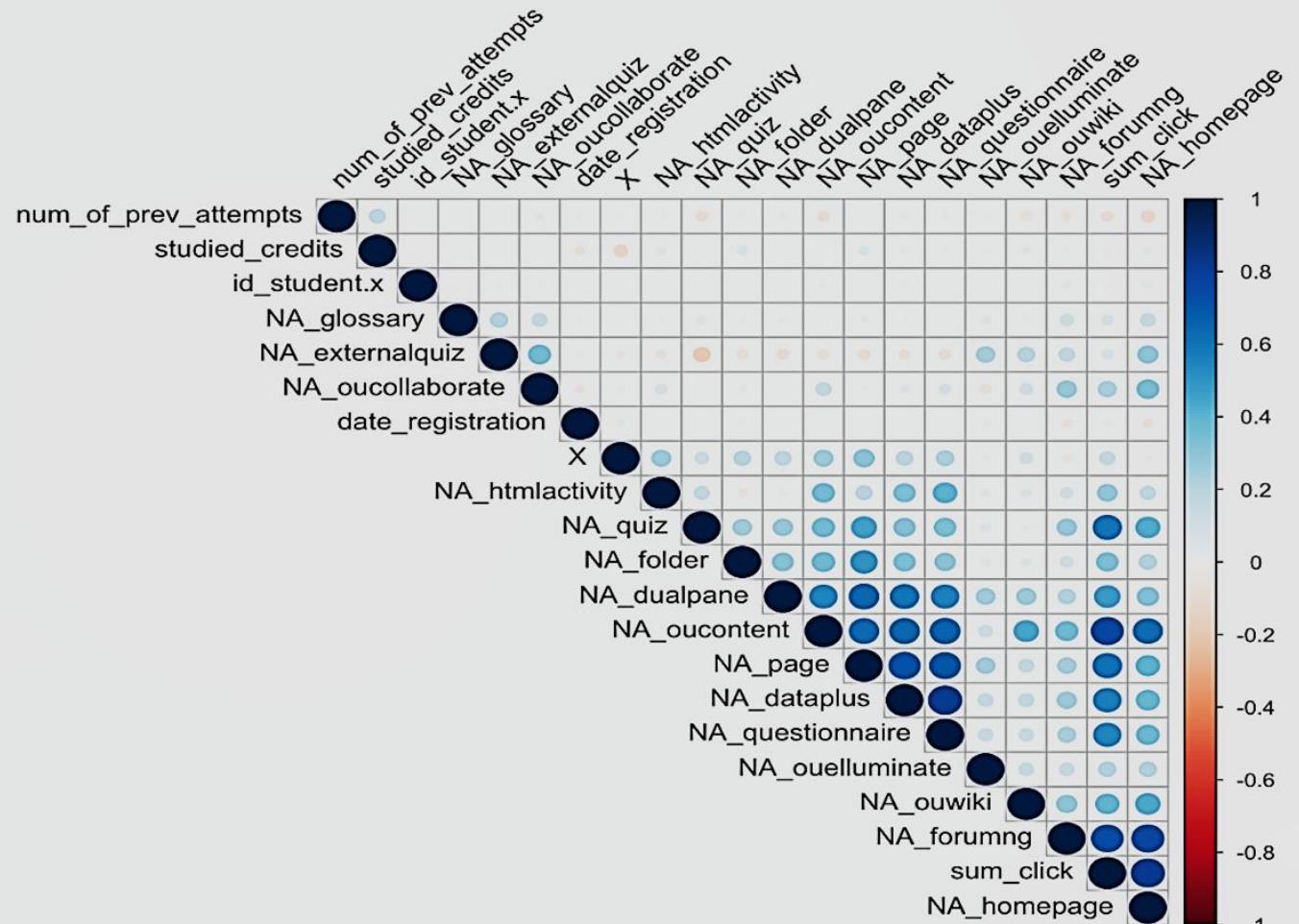
Attributes' Selection

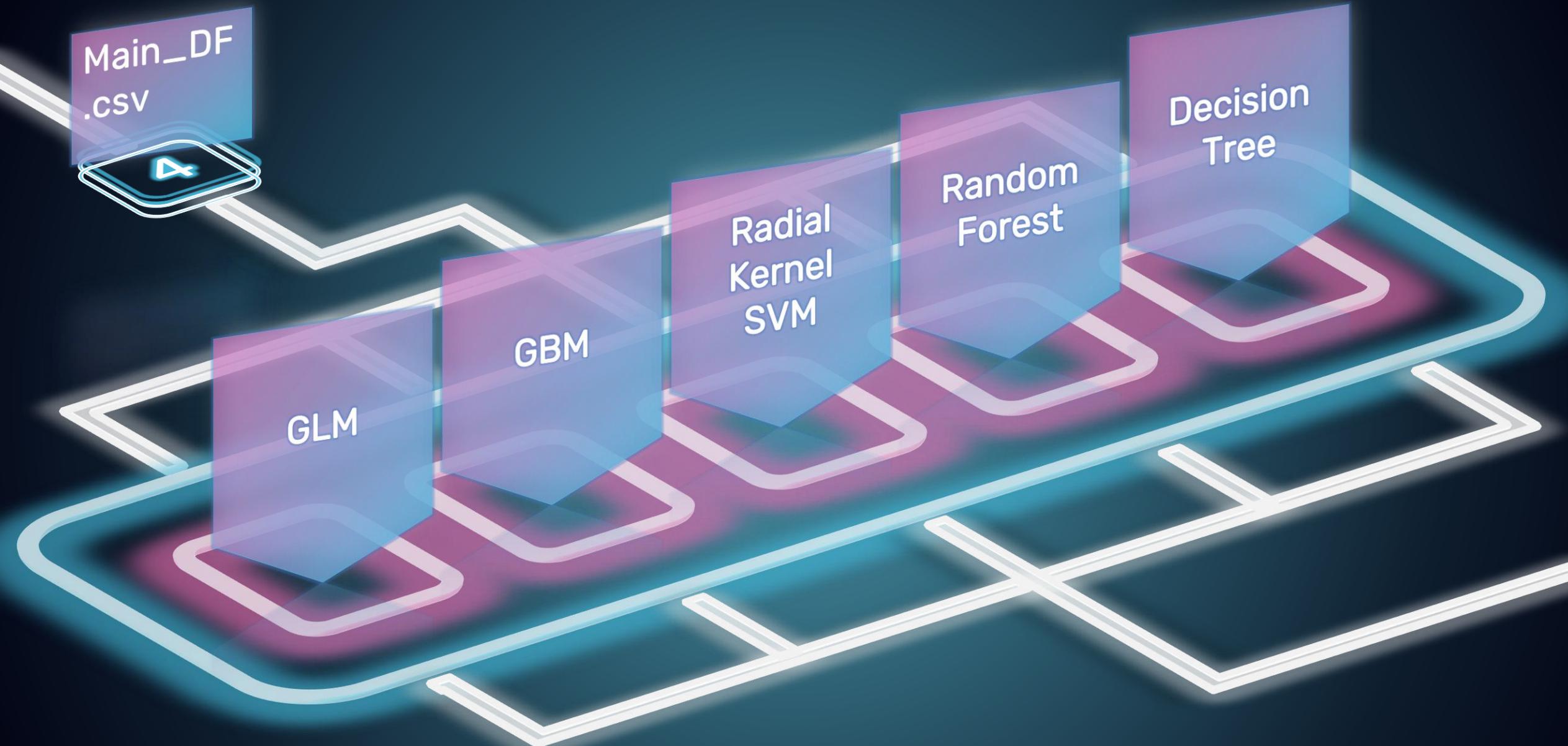
Classification Models Evaluation





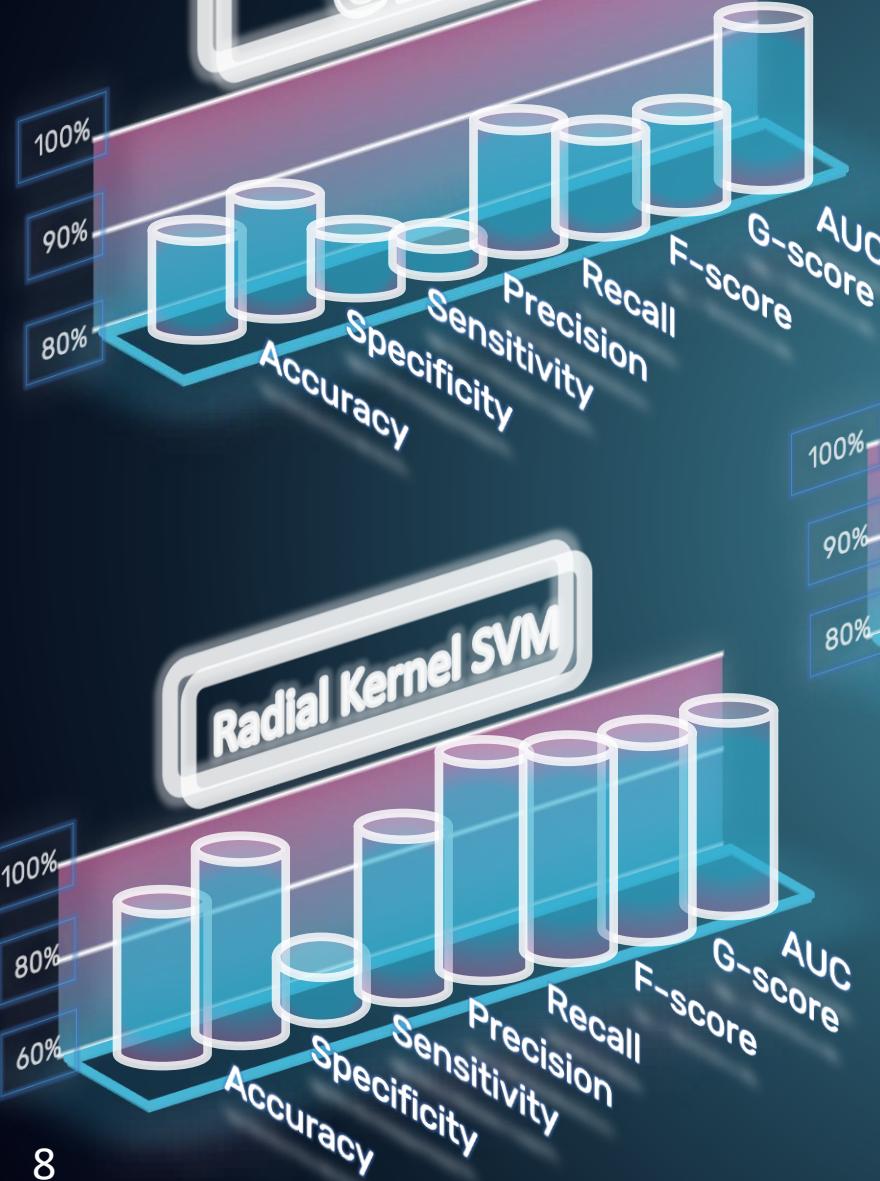
Highlighting the most correlated variables in the dataset



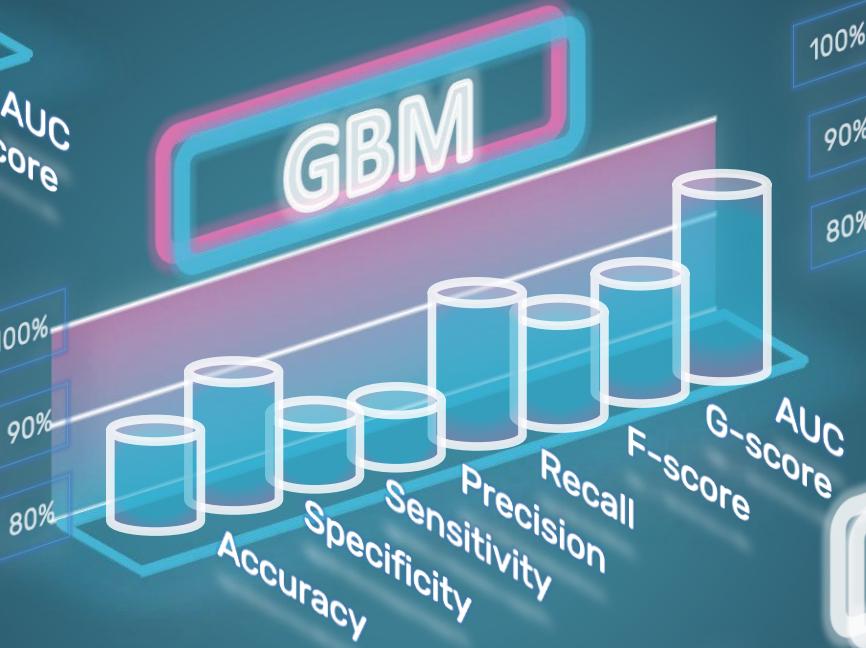


Model	GLM	GBM	Radial Kernel SVM	Random Forest	Decision Tree
Accuracy	0.870	<b>0.882</b>	<b>0.903</b>	<b>0.883</b>	0.875
Specificity	0.901	<b>0.912</b>	<b>0.975</b>	<b>0.850</b>	0.969
Sensitivity	0.845	<b>0.856</b>	<b>0.723</b>	<b>0.850</b>	0.969
Precision	0.829	<b>0.842</b>	<b>0.898</b>	<b>0.837</b>	0.870
Recall	0.901	<b>0.912</b>	<b>0.975</b>	<b>0.924</b>	0.969
F-score	0.863	<b>0.875</b>	<b>0.935</b>	<b>0.878</b>	0.917
G-score	0.864	<b>0.876</b>	<b>0.936</b>	<b>0.879</b>	0.918
AUC	0.926	<b>0.941</b>	<b>0.939</b>	<b>0.930</b>	0.917

# GLM



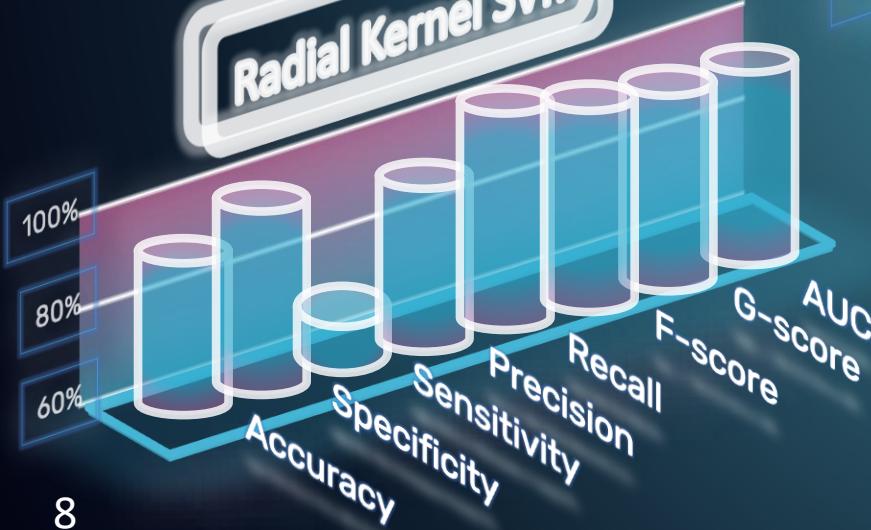
# GBM

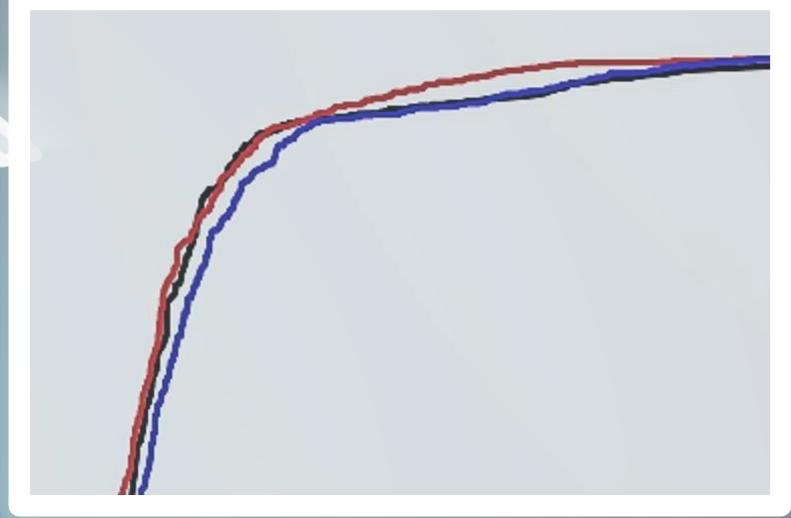
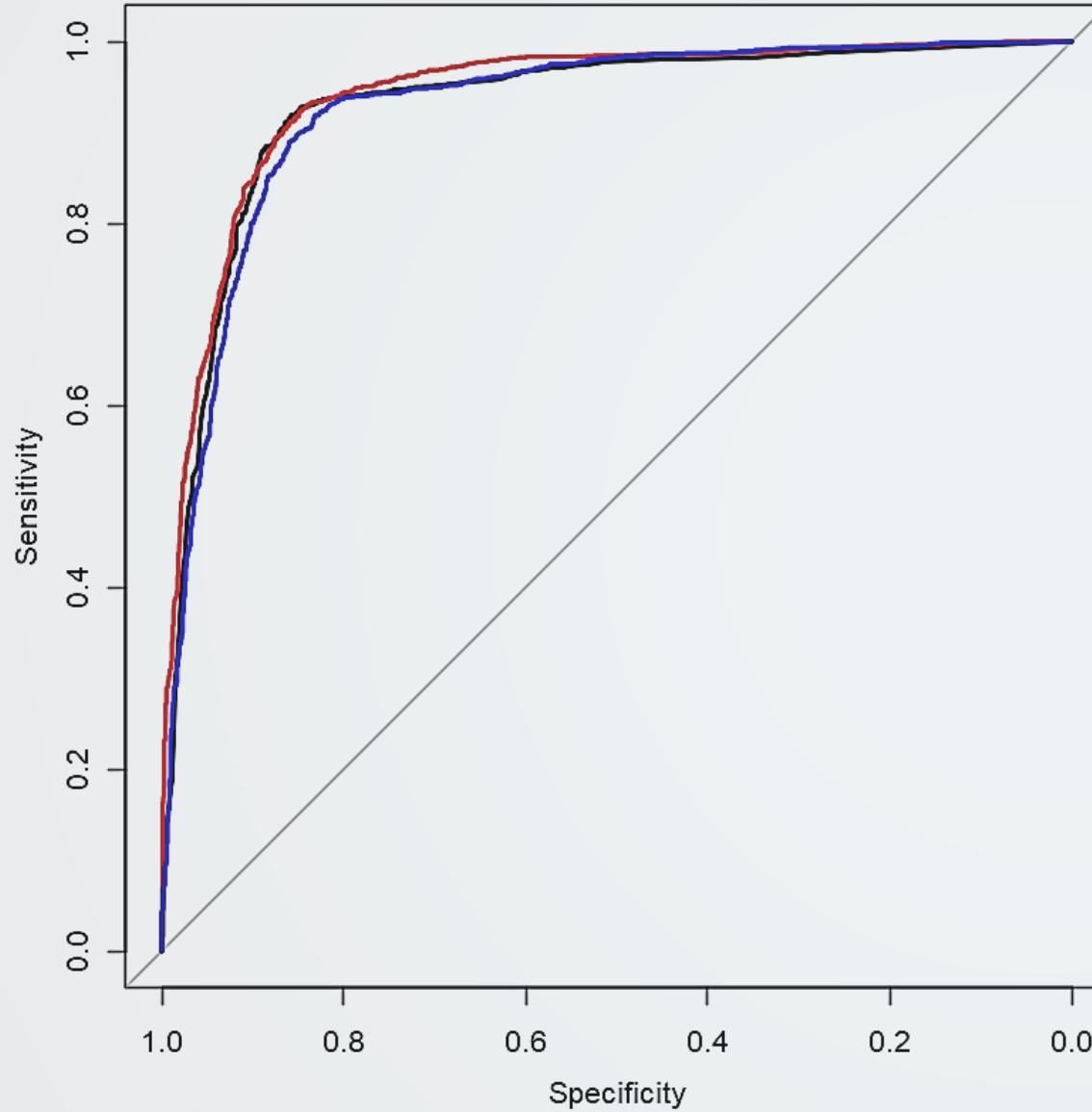


# Random Forest



# Radial Kernel SVM





GBM

Random Forest

RBF SVM

## Business Problem

Statistics depict an increase in the Drop and Fail rate of student in Universities

## Model Prediction

Model predicts the likelihood of a student to complete the course

## Use of Model

Identifying and targeting interventions for at risk students

## Mentorship

## Tutoring

## Counseling

- Employing academic advisors for guidance.
- Supporting through financial aid cycle.

- Tailor tutoring classes for similar segments.

- Counseling at individual level and introducing mental awareness sessions.



A graphic featuring the letters "Q", "&", and "A" in a glowing neon style. The "Q" is pink, "&" is white, and "A" is blue. They are set against a dark teal background within a white-outlined rectangular frame. White curved lines above and below the frame extend beyond its boundaries, creating a sense of motion.

Q & A



**THANK YOU**