

# Correlation Between Variables

Below scatterplots explain the correlation between AADT and other variables in the INDOT dataset. This correlation can help to identify the possible predictors to be used in the Model for predicting AADT

AADT\_SU: This variable has a positive correlation of approximately 0.90 with AADT. It represents the single unit truck traffic volume and is a strong predictor for AADT.

AADT\_COMBO: This variable has a positive correlation of approximately 0.79 with AADT. It represents the combination truck traffic volume and is another strong predictor for AADT.

PCT\_DH\_COM,PCT\_DH\_SIN,D-FAC, and K-FAC have lower correlations but might still provide some predictive power when combined with other features. Additionally, when these features and AADT are both log-transformed, the correlation increases. Since these measures are either ratios or percentages, most values fall between 0 and 100, so the log-transformation to emphasize the small differences is a powerful tool.

