Models/Results

**Standard Scalar, Train-Test Split Logistic Regression on Numerical Columns**

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**Standard Scalar, Train-Test Split Logistic Regression on WoE Encoded Columns**

Chart

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**DataFrame mapping technique used in 2nd model:**

Note: WoE labels for each age (not grouped)

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Target Salary Groupings used for WoE tier-marked labels (grouped):

["15k-26k","26k-40k","40k-55k","55k-67k","67k-81k","81k-100k", "100k-120k","120k-135k","135k-150k"]

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**Final map before DataFrame reduction:**

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**Logistic Regression on one-hot encoded variables, K-fold split**

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**Information gained in binary target split – tier groupings classified by age, salary, of classification accuracy similar to scores in Standard Scalar, Train-test split Logistic Regression on nominal/numerical values, meaning classification prediction as subdivided by market tiers, is of use in determining group market cluster-value strategy for Purchased/Not Purchased.**

**Logistic Regression on one-hot encoded variables, Train-Test split**

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**Dataframe used for both models:**

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Note: One-Hot Encoding for age (grouped):

["18-25","26-35","36-45","46-55","55+"]

Target Salary Groupings used for one-hot encoding (grouped):

["15k-26k","26k-40k","40k-55k","55k-67k","67k-81k","81k-100k", "100k-120k","120k-135k","135k-150k"]

Note: models not scaled, one-hot normalized distribution

**Dataframe Mapping technique used for IV/WoE mapping in following models:**

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Final Map before DataFrame reduction:

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**Results of WoE encoding log regression *without* standard scaling, K-fold split**

Note: columns

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**Results of WoE encoding log regression *with* standard scaling, K-fold split**

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**DataFrame used on both WoE models:**

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**Results of IV Encoding *without* standard scaling**

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**Results of IV encoding *with* standard scaling**

Text

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**Reduced DataFrame used in both IV models:**

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**Results for both IV are exactly the same as results from WoE, scaled Log-Reg K-fold, which insinuates IV encoding as a scaled metric.**