

## Time Estimation (LR/02)

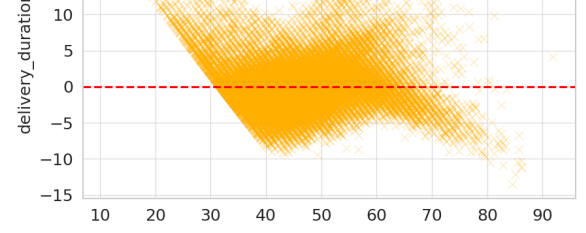
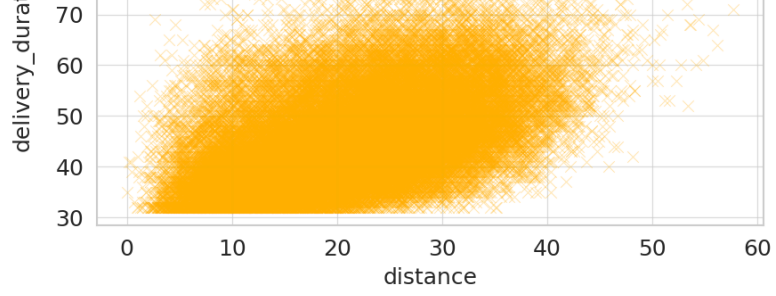
### Executive Summary

Baseline: MAE=1.991, RMSE=2.907, R2=0.9034

Final (RFE 8): MAE=2.477, RMSE=3.428, R2=0.8658

### Selected features:

subtotal, total\_onshift\_dashers, total\_busy\_dashers, total\_outstanding\_orders, distance, order\_hour, market\_id\_2.0, market



# Residuals & OLS Summary

## OLS Regression Results

Dep. Variable:	delivery_duration_min	R-squared:	0.865
Model:	OLS	Adj. R-squared:	0.865
Method:	Least Squares	F-statistic:	1.131e+05
Date:	Thu, 02 Oct 2025	Prob (F-statistic):	0.00
Time:	15:29:37	Log-Likelihood:	-3.7237e+05
No. Observations:	140621	AIC:	7.448e+05
Df Residuals:	140612	BIC:	7.449e+05
Df Model:	8		
Covariance Type:	nonrobust		

	coef	std err	t	P> t	[0.025	0.975]
const	45.4613	0.015	3079.204	0.000	45.432	45.490
x1	3.3472	0.010	329.080	0.000	3.327	3.367
x2	-17.7749	0.045	-395.401	0.000	-17.863	-17.687
x3	-6.8003	0.045	-149.679	0.000	-6.889	-6.711
x4	23.6056	0.037	637.187	0.000	23.533	23.678
x5	6.1763	0.013	461.791	0.000	6.150	6.202
x6	-4.2757	0.020	-216.296	0.000	-4.314	-4.237
x7	-2.0010	0.022	-92.255	0.000	-2.044	-1.958
x8	-2.0543	0.030	-69.140	0.000	-2.113	-1.996

Omnibus:	36890.212	Durbin-Watson:	1.996
Prob(Omnibus):	0.000	Jarque-Bera (JB):	138197.748
Skew:	1.280	Prob(JB):	0.00
Kurtosis:	7.127	Cond. No.	8.57

Notes:  
[1] Standard Errors assume that the covariance matrix of the errors is correctly specified.

## **Recommendations & Assumptions**

- Use predictions for ETA and resource allocation.
- Add weather & traffic features to improve model.
- Retrain periodically to adjust for drift.

Assumptions: limited dummy encoding, no external features used.