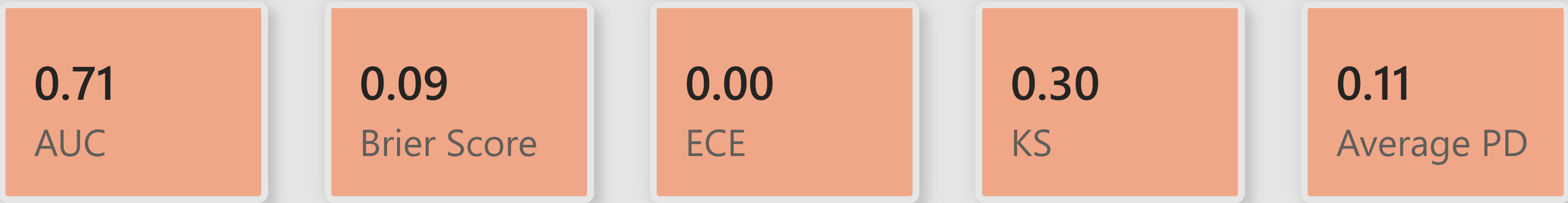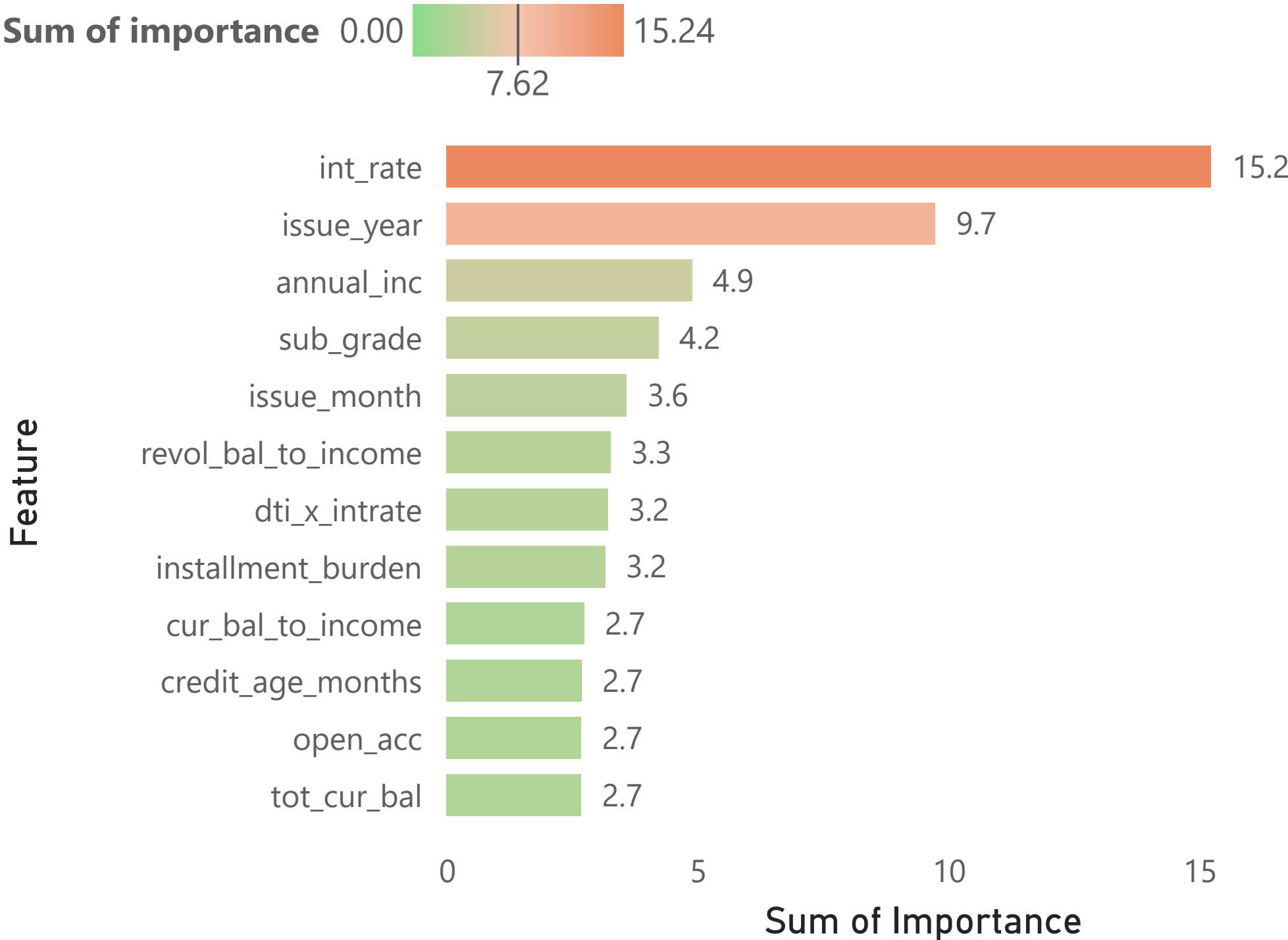# Model Insights - Performance & Predictions

Interpreting Model Predictions Through Calibrated Probabilities, Key Drivers And SHAP-Based Explanations
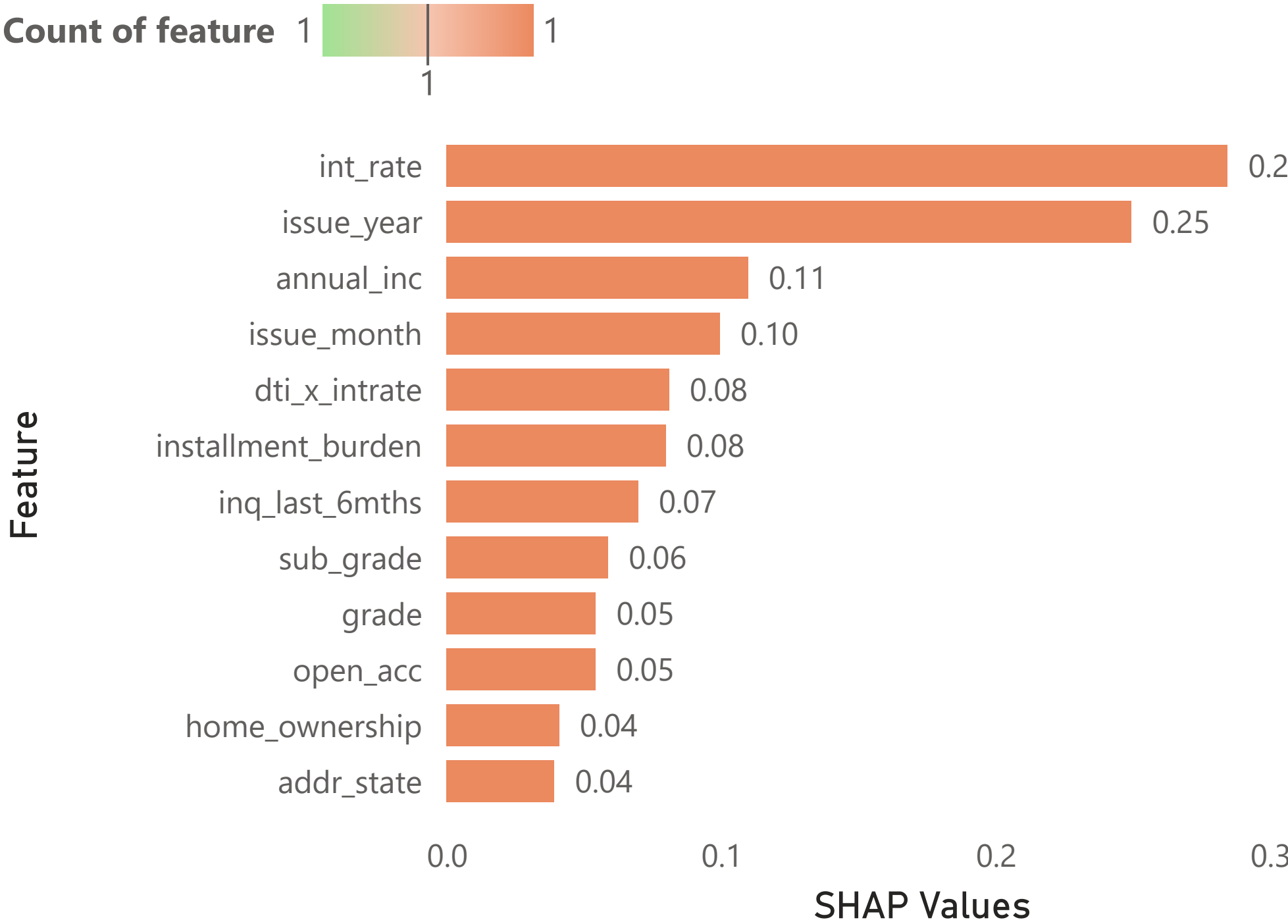
Model Metrics

0.71	0.09	0.00	0.30	0.11
AUC	Brier Score	ECE	KS	Average PD

All ▾

issue_year	grade	Sum of funded_amnt	int_rate	pred_proba_calibrated ▾	Expected Loss	loan_default_flag
2007	E	$12,000	14.38	0.49	$5,832.14	0
2008	G	$17,350	17.41	0.48	$8,365.39	1
2008	G	$20,825	18.29	0.48	$10,009.98	1
2010	E	$4,000	17.19	0.48	$1,920.03	1
2011	F	$18,000	21.74	0.48	$8,572.46	1
2009	E	$15,000	16.63	0.47	$7,121.76	1
2010	G	$12,000	21.27	0.47	$5,682.46	1
2011	G	$19,125	20.85	0.47	$9,045.52	0
2007	F	$8,500	15.96	0.47	$4,019.35	1
2011	E	$11,400	18.79	0.47	$5,379.11	1
2007	F	$25,000	15.33	0.47	$11,765.59	1
2010	G	$25,000	20.90	0.47	$11,755.66	1
2012	E	$15,750	21.48	0.47	$7,364.17	1
2011	F	$16,200	21.74	0.47	$7,567.40	1
2007	F	$13,925	15.96	0.47	$6,491.16	1
2010	E	$9,250	16.32	0.47	$4,311.34	0
2012	G	$26,400	23.91	0.46	$12,239.72	1
2009	F	$7,000	17.90	0.46	$3,241.54	0
2007	G	$12,000	17.86	0.46	$5,544.90	1
2011	E	$18,000	19.69	0.46	$8,315.22	0
2008	F	$14,300	15.01	0.46	$6,604.25	1
2010	F	$4,000	18.91	0.46	$1,845.29	0
2010	C	$16,000	12.23	0.46	$7,367.95	1
Total		**$6,664,052,450**				

Feature Importance

Sum of importance 0.00 ▬▬ 15.24 (7.62)

Feature	Sum of Importance
int_rate	15.2
issue_year	9.7
annual_inc	4.9
sub_grade	4.2
issue_month	3.6
revol_bal_to_income	3.3
dti_x_intrate	3.2
installment_burden	3.2
cur_bal_to_income	2.7
credit_age_months	2.7
open_acc	2.7
tot_cur_bal	2.7

SHAP Summary

Count of feature 1 ▬▬ 1 (1)

Feature	SHAP Values
int_rate	0.28
issue_year	0.25
annual_inc	0.11
issue_month	0.10
dti_x_intrate	0.08
installment_burden	0.08
inq_last_6mths	0.07
sub_grade	0.06
grade	0.05
open_acc	0.05
home_ownership	0.04
addr_state	0.04