

# Report 2 Intent Accuracy Summary

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intent	f1-score	precision	recall	samples	confused_with
self_service	1.0	1.0	1.0	11	
setup_autopay	0.943	0.891	1.0	41	
tvision	0.942	0.964	0.922	115	'payment_processing': 2 'broken': 2
end_conversation	0.923	0.857	1.0	6	
deny	0.894	0.853	0.939	99	'affirm': 1 'balance_eip': 1
lost_phone	0.889	0.936	0.846	52	'order_status': 2 'pa_change_dates': 2
affirm	0.885	0.901	0.87	230	'out_of_scope': 12 'broken': 3
speak_spanish	0.883	0.964	0.815	65	'bill_view': 3 'shop_device': 2
shop_device_apple	0.876	0.859	0.893	75	'shop_device': 2 'balance_eip': 1
plan_addons	0.873	0.941	0.814	59	'line_add': 3 'worry_shutoff': 1
manage_plan	0.867	0.832	0.904	115	'transfer_to_expert': 2 'out_of_scope_tmo': 2
order_status	0.86	0.827	0.896	48	'shop_device': 4 'shop_device_apple': 1
line_suspend	0.857	0.878	0.837	43	'transfer_to_expert': 3 'line_add': 3
balance_eip	0.851	0.799	0.91	122	'bill_pay': 4 'bill_view': 3
thank	0.843	0.86	0.827	52	'deny': 3 'balance_eip': 1
bill_pay	0.842	0.822	0.863	139	'pa_cannot_pay': 5 'pa_edit_cancel': 4
broken	0.841	0.825	0.858	148	'pa_update_payment': 3 'out_of_scope': 2
transfer_to_expert	0.825	0.812	0.838	160	'pa_edit_cancel': 5 'out_of_scope_tmo': 3
bill_view	0.824	0.778	0.875	88	'balance_eip': 2 'bill_general': 2
main_menu	0.808	0.724	0.913	23	'out_of_scope': 1 'shop_device': 1
greeting	0.781	0.732	0.837	49	'affirm': 3 'closing': 2
bill_shock	0.78	0.821	0.742	31	'bill_general': 3 'payment_processing': 2
shop_device	0.762	0.735	0.791	91	'manage_plan': 5 'line_add': 4
pa_change_dates	0.756	0.718	0.799	134	'pa_edit_cancel': 16 'pa_cannot_pay': 4
pa_update_payment	0.745	0.707	0.788	52	'pa_edit_cancel': 4 'pa_change_dates': 1
line_add	0.742	0.686	0.808	73	'manage_plan': 3 'shop_device_apple': 2
line_add_byo	0.742	0.821	0.676	34	'line_add': 6 'shop_device': 1

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intent	f1-score	precision	recall	samples	confused_with
payment_processing	0.72	0.684	0.761	71	'balance_eip': 4 'pa_create': 3
out_of_scope	0.711	0.867	0.603	292	'affirm': 13 'broken': 11
why	0.71	0.688	0.733	15	'transfer_to_expert': 1 'greeting': 1
pa_create	0.66	0.637	0.684	95	'pa_cannot_pay': 5 'pa_change_dates': 4
pa_edit_cancel	0.629	0.624	0.633	139	'pa_change_dates': 12 'pa_create': 9
pa_view_existing	0.6	0.75	0.5	18	'pa_create': 3 'pa_edit_cancel': 1
closing	0.593	0.593	0.593	27	'transfer_to_expert': 3 'thank': 3
bill_general	0.592	0.583	0.6	35	'bill_view': 4 'bill_pay': 2
worry_shutoff	0.542	0.65	0.464	28	'transfer_to_expert': 4 'balance_eip': 3
pa_cannot_pay	0.487	0.492	0.483	60	'pa_change_dates': 10 'pa_create': 8
out_of_scope_tmo	0.472	0.49	0.455	55	'pa_edit_cancel': 3 'transfer_to_expert': 3
macro avg	0.795	0.79	0.807	3032	nan
weighted avg	0.789	0.796	0.791	3032	nan

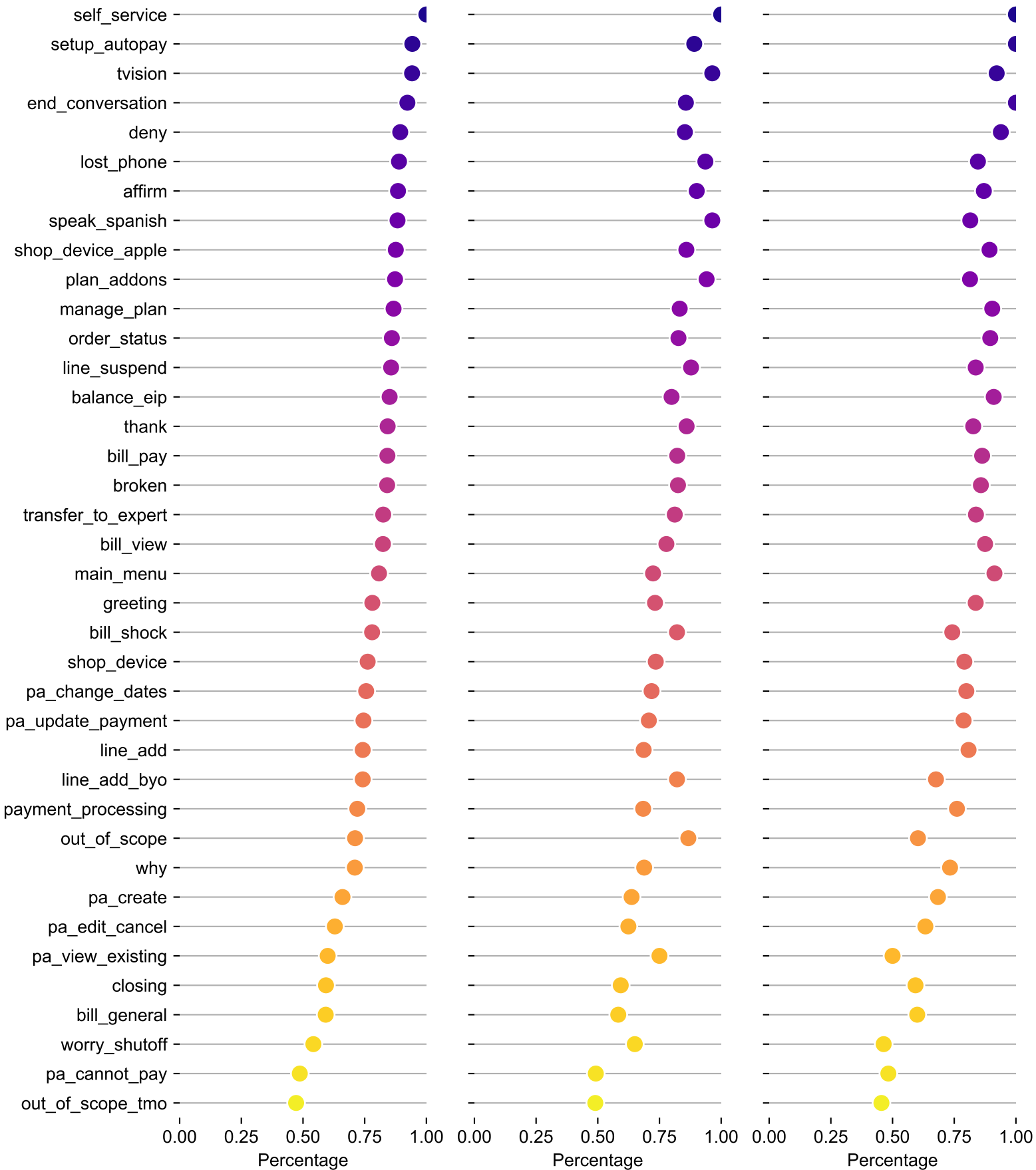
Overall Accuracy

# Report 2 Intent f1 Ranking

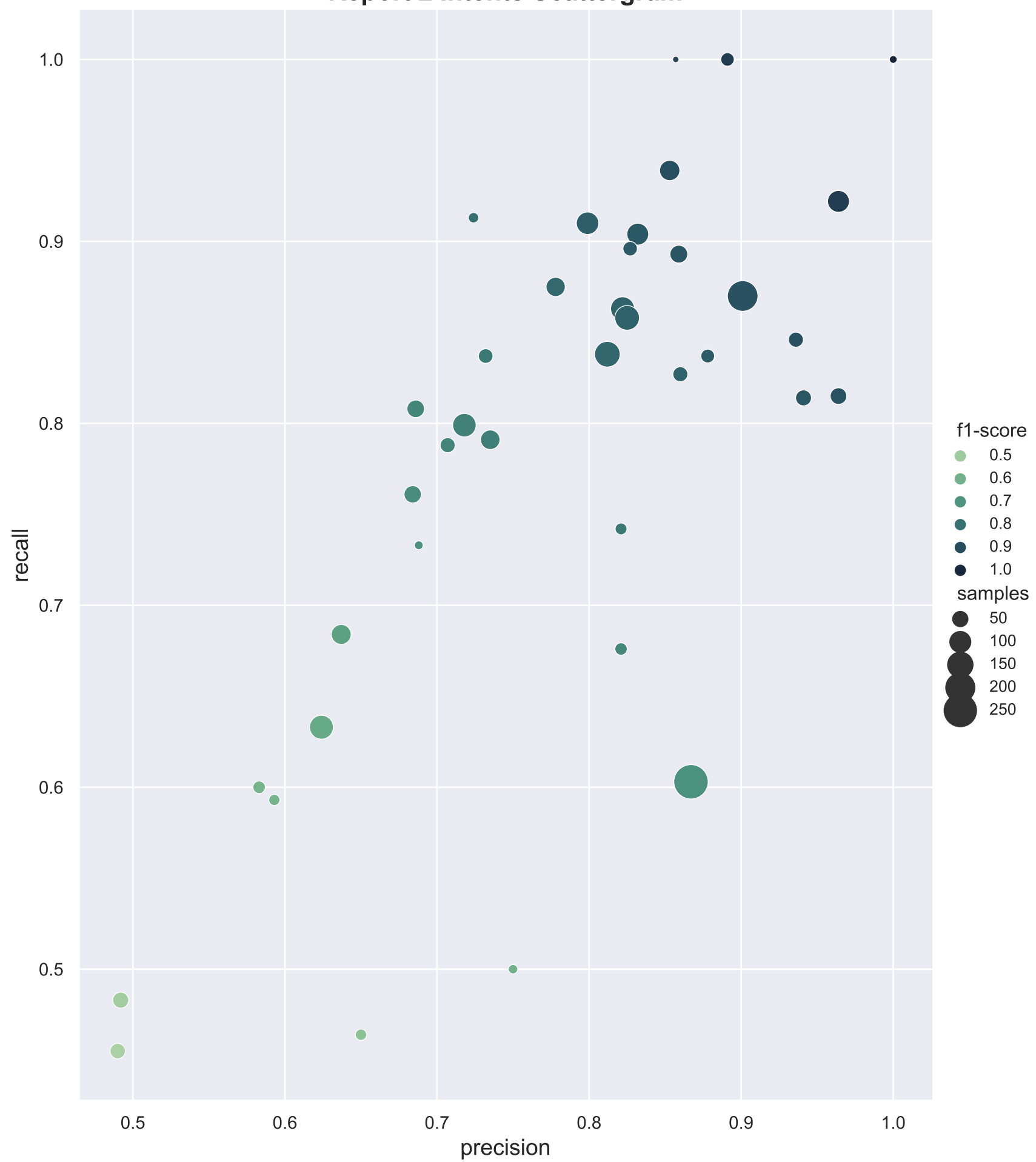
F1-Score

Precision

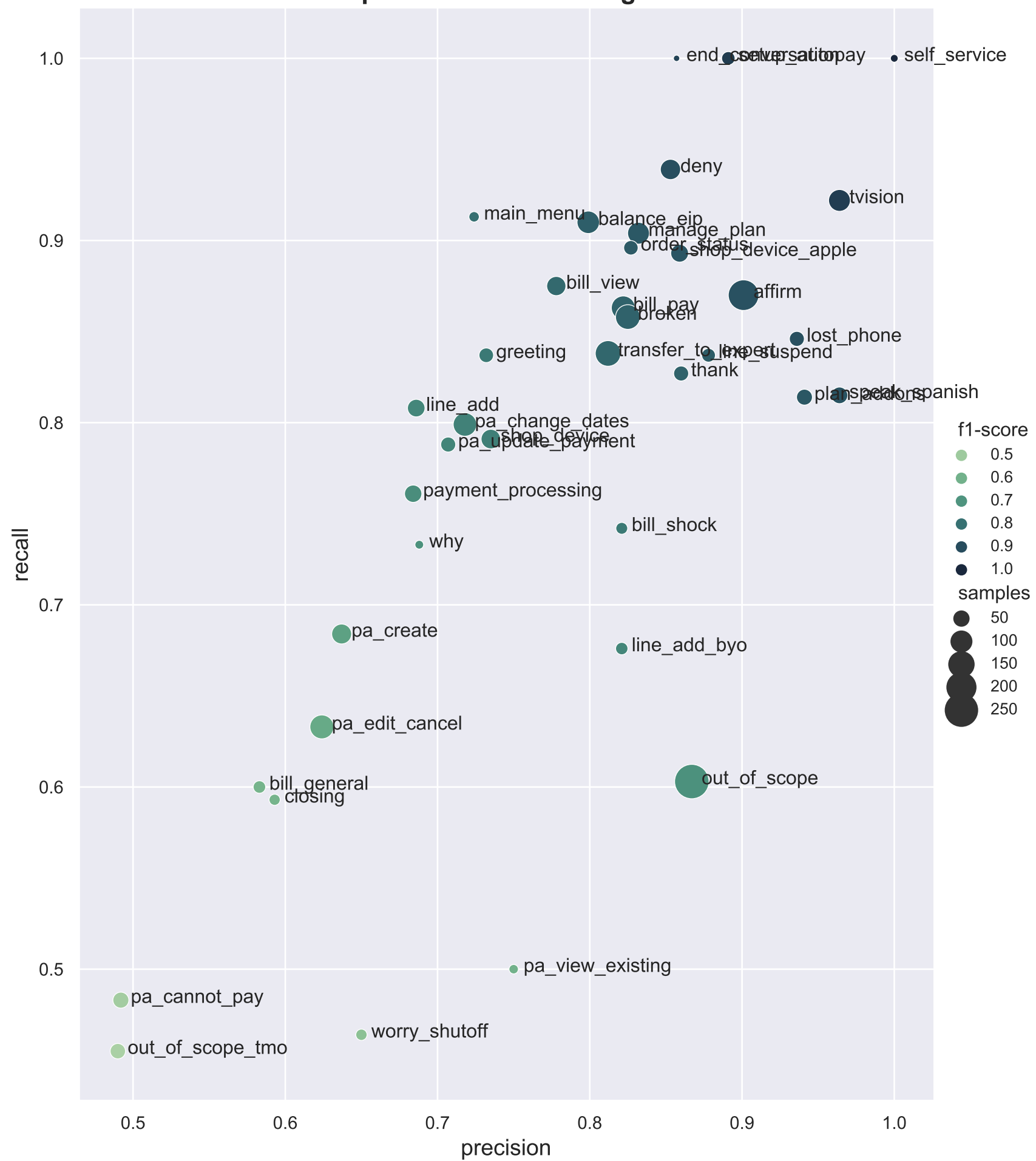
Recall



Report 2 Intents Scattergram



# Report 2 Intents Scattergram



## Report 2 Confidence Averages for Errors

intent	confidence	count
greeting	0.913	8
speak_spanish	0.869	12
pa_change_dates	0.867	27
shop_device_apple	0.858	8
order_status	0.854	5
affirm	0.841	30
pa_view_existing	0.803	9
bill_general	0.798	14
line_suspend	0.796	7
pa_cannot_pay	0.78	31
button_payment_options	0.779	1
pa_edit_cancel	0.778	51
pa_update_payment	0.771	11
thank	0.771	9
lost_phone	0.768	8
deny	0.765	6
out_of_scope_tmo	0.763	30
transfer_to_expert	0.758	26
why	0.754	4
main_menu	0.753	2
line_add_byo	0.749	11
closing	0.748	11
balance_eip	0.742	11
payment_processing	0.742	17
bill_pay	0.739	19
shop_device	0.718	19
out_of_scope	0.698	116
broken	0.688	21
pa_create	0.68	30
worry_shutoff	0.679	15
manage_plan	0.674	11
tvision	0.645	9
bill_view	0.634	11
bill_shock	0.625	8
line_add	0.602	14
plan_addons	0.565	11
button_need_help	0.343	1

'count' = Number of times the intent was missed

'confidence' = Avg confidence when intent was missed

intent_prediction	confidence	count
plan_addons	0.955	3
why	0.926	5
affirm	0.92	22
tvision	0.886	4
out_of_scope	0.883	27
pa_change_dates	0.839	42
button_need_help	0.817	3
broken	0.789	27
bill_shock	0.787	5
bill_pay	0.783	26
pa_edit_cancel	0.782	53
shop_device	0.764	26
closing	0.755	11
button_shop_other_device	0.755	1
transfer_to_expert	0.753	31
deny	0.753	16
bill_view	0.749	22
line_add	0.747	27
setup_autopay	0.746	5
balance_eip	0.735	28
end_conversation	0.728	1
pa_cannot_pay	0.724	30
line_suspend	0.713	5
shop_device_apple	0.708	11
manage_plan	0.705	21
thank	0.69	7
worry_shutoff	0.687	7
payment_processing	0.681	25
pa_create	0.677	37
out_of_scope_tmo	0.676	26
line_add_byo	0.668	5
bill_general	0.647	15
pa_update_payment	0.64	17
greeting	0.62	15
speak_spanish	0.611	2
main_menu	0.607	8
button_manage_services	0.517	1
lost_phone	0.508	3
order_status	0.482	9
button_payment_options	0.47	1
button_view_deals	0.41	1
pa_view_existing	0.314	3

'count' = Number of times the intent was incorrectly used

'confidence' = Avg confidence when intent was incorrectly used

## Report 2 Intent Pairings

Table 1 of 2

Intent pairings below the threshold of 3 occurrences have not been included  
 'count' = number of times the prediction was mistakenly used instead of the correct intent  
 'confidence' = average confidence all all mistaken predictions

intent	intent_prediction	count	confidence
pa_change_dates	pa_edit_cancel	16	0.877
out_of_scope	affirm	13	0.926
affirm	out_of_scope	12	0.93
pa_edit_cancel	pa_change_dates	12	0.891
out_of_scope	broken	11	0.756
pa_cannot_pay	pa_change_dates	10	0.932
pa_edit_cancel	pa_create	9	0.749
pa_cannot_pay	pa_create	8	0.75
pa_edit_cancel	pa_cannot_pay	8	0.754
out_of_scope	shop_device	7	0.741
pa_cannot_pay	pa_edit_cancel	7	0.718
out_of_scope	transfer_to_expert	6	0.713
out_of_scope	closing	6	0.665
out_of_scope	out_of_scope_tmo	6	0.682
line_add_byo	line_add	6	0.776
out_of_scope	line_add	5	0.632
out_of_scope	pa_edit_cancel	5	0.546
shop_device	manage_plan	5	0.753
out_of_scope	bill_view	5	0.603
bill_pay	pa_cannot_pay	5	0.564
pa_create	pa_cannot_pay	5	0.684
pa_edit_cancel	broken	5	0.899
transfer_to_expert	pa_edit_cancel	5	0.749
out_of_scope	pa_change_dates	4	0.556
pa_edit_cancel	pa_update_payment	4	0.58
out_of_scope	manage_plan	4	0.678
out_of_scope	main_menu	4	0.44
pa_update_payment	pa_edit_cancel	4	0.904
out_of_scope	greeting	4	0.675
out_of_scope	pa_update_payment	4	0.657
pa_create	pa_change_dates	4	0.787
pa_edit_cancel	payment_processing	4	0.655
pa_edit_cancel	bill_pay	4	0.885
order_status	shop_device	4	0.822
payment_processing	balance_eip	4	0.803
shop_device	out_of_scope_tmo	4	0.65
pa_change_dates	pa_cannot_pay	4	0.945
worry_shutoff	transfer_to_expert	4	0.741
shop_device	line_add	4	0.748
bill_pay	pa_edit_cancel	4	0.775

# Report 2 Intent Pairings

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intent	intent_prediction	count	confidence
balance_eip	bill_pay	4	0.688
bill_pay	balance_eip	4	0.888
bill_general	bill_view	4	0.78
out_of_scope	payment_processing	3	0.531
pa_view_existing	pa_create	3	0.737
closing	transfer_to_expert	3	0.6
speak_spanish	bill_view	3	0.944
out_of_scope	thank	3	0.516
out_of_scope	shop_device_apple	3	0.704
payment_processing	pa_create	3	0.636
greeting	affirm	3	0.96
out_of_scope	pa_cannot_pay	3	0.62
thank	deny	3	0.736
line_add	manage_plan	3	0.567
out_of_scope	deny	3	0.773
out_of_scope	bill_pay	3	0.734
bill_shock	bill_general	3	0.659
line_suspend	line_add	3	0.916
line_suspend	transfer_to_expert	3	0.758
plan_addons	line_add	3	0.83
out_of_scope_tmo	pa_edit_cancel	3	0.715
closing	thank	3	0.804
pa_create	bill_pay	3	0.869
worry_shutoff	balance_eip	3	0.734
pa_create	bill_general	3	0.573
affirm	broken	3	0.961
broken	pa_update_payment	3	0.909
affirm	deny	3	0.695
pa_create	payment_processing	3	0.771
pa_create	balance_eip	3	0.458
out_of_scope_tmo	transfer_to_expert	3	0.799
transfer_to_expert	out_of_scope_tmo	3	0.834
worry_shutoff	bill_pay	3	0.705
balance_eip	bill_view	3	0.826