



Beta Presentation

Provider Anomaly Analytics Toolkit

The Capstone Experience

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*From Students...
...to Professionals*

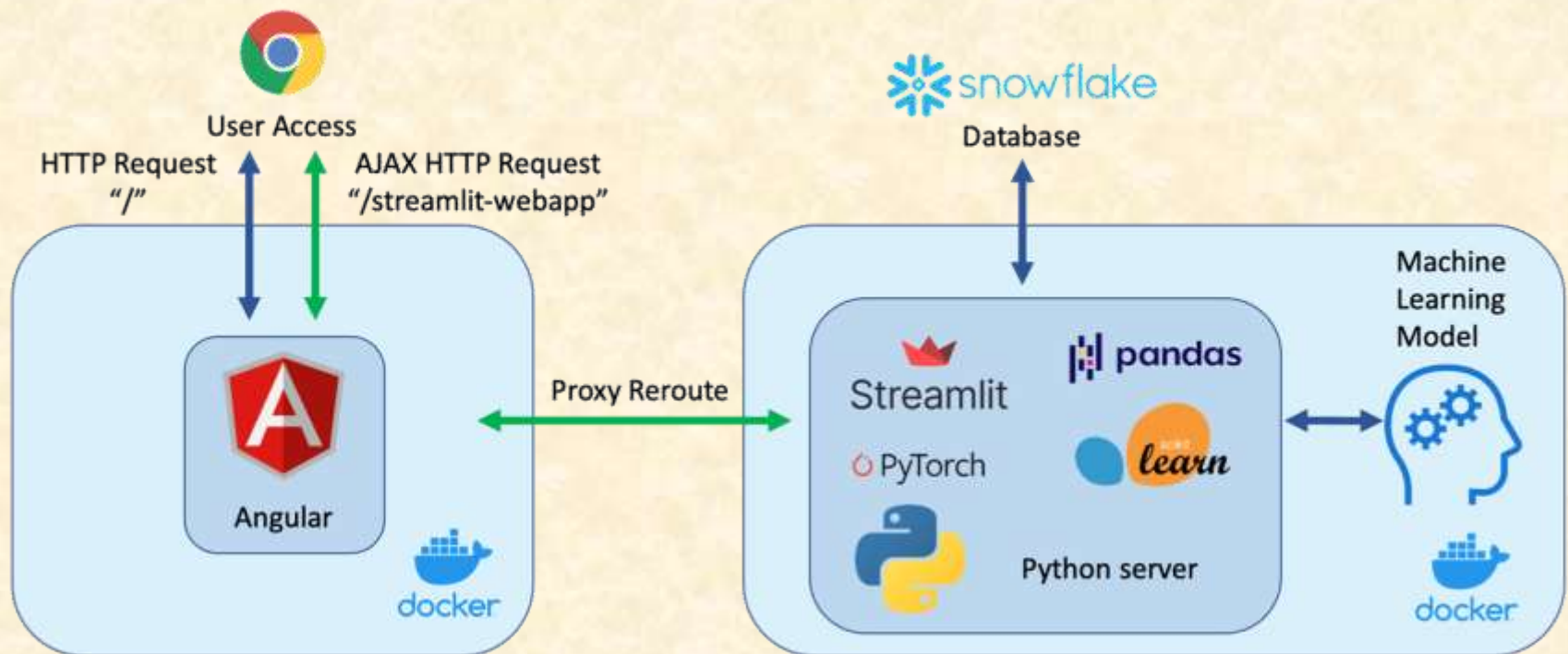
Project Overview

- Web app to help eliminate fraud, waste, abuse
 - Provides visualizations
 - Automatically suggest outliers
 - Combines all the data sources into one
- Improves expected quality of care and cost



System Architecture

Roosevelt
simple. seamless. smart.



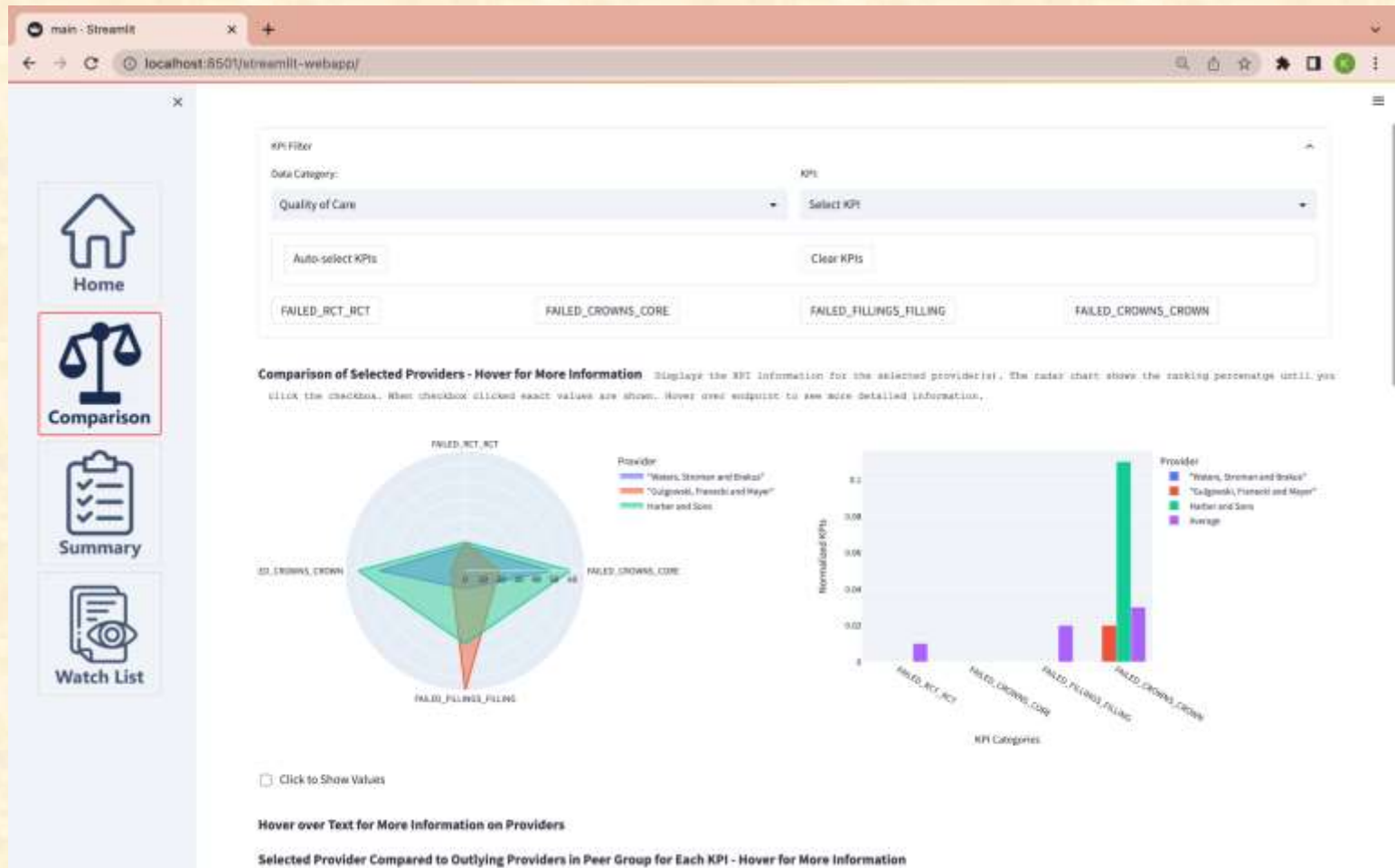
Home Screen

The screenshot shows a web browser window displaying the Streamlit Home Screen. The browser's address bar shows the URL `localhost:8501/streamlit-webapp/`. The application interface includes a sidebar on the left with four icons: a house for 'Home' (highlighted with a red box), a balance scale for 'Comparison', a clipboard for 'Summary', and an eye for 'Watch List'. The main content area is titled 'Home' and features a 'See List' dropdown menu. Below this, there are five filter buttons: 'State' (set to 'MI'), 'City' (set to 'Select City'), 'Provider' (set to 'Select Provider'), 'Provider ID' (set to 'Select Provider ID'), and 'Risk Score'. A table displays data for various providers, with columns for State, City, Provider, Provider ID, Peer Group, Risk Score, (E) Total plan pay, Total number of discharges, and Total # of patients. The table contains 10 rows of data. At the bottom left of the main area is a button labeled 'Add To Watch List', and at the bottom center is the text 'Made with Streamlit'.

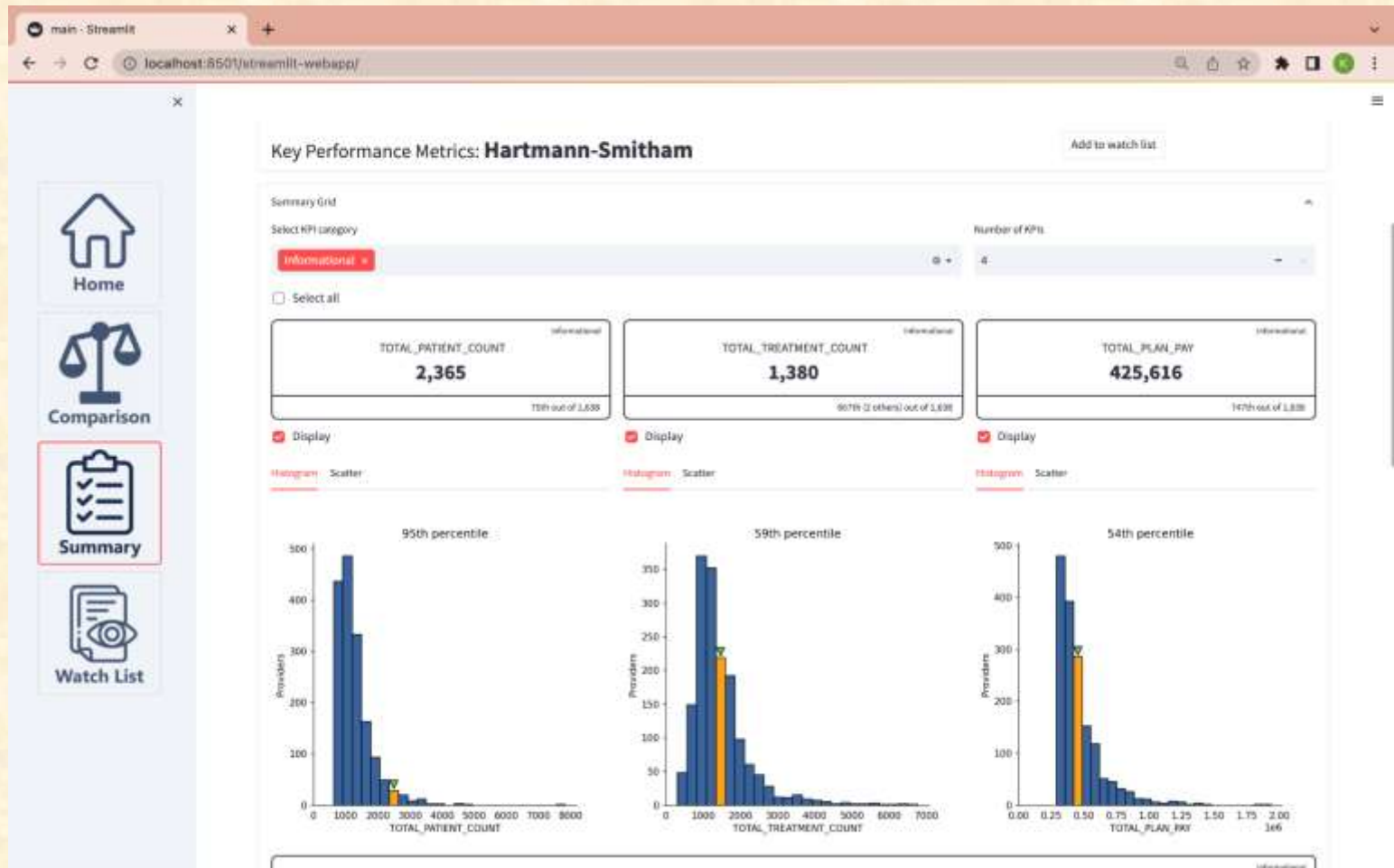
State	City	Provider	Provider ID	Peer Group	Risk Score	(E) Total plan pay	Total number of discharges	Total # of patients
MI	Lansing	Hartmann-Smith	1711888	8	0	429618.25	194	2065
MI	Lansing	"Davis, Wilson et al."	1125040	8	0	395123.09	172	1044
MI	Lansing	"Jaskolski, Gaylord"	1120974	8	0	922336.75	206	2183
MI	Battle Creek	Kunze LLC	1127680	5	0	527403.29	214	1588
MI	Detroit	"Walter, Kannever et al."	1128968	8	0	495084.19	254	1585
MI	Detroit	Lechner Inc	1133378	3	0	139270.4	240	828
MI	Flint	"Gulgowski, Frances"	1127875	8	100	431885.35	186	888
MI	Farmington	"Waters, Strommen et al."	1131513	1	8	229007.88	81	325
MI	Troy	"Wertz, Skiles et al."	1130011	4	0	182012.05	192	1237
MI	Flint	Harber and Sons	1132632	8	0	305708.33	204	940



Comparison View



Summary View



Watch List View

main - Streamlit

localhost:8501/streamlit-webapp/

Home

Comparison

Summary

Watch List

Watch List

Claim Data

CLAIM_ID	BUSINESS_NAME	BUSINESS_TAX_ID	CHECK_ISSUE_DATE	PROCEDURE_CODE	PLAN_PMT_AMT	CLAIM_STATUS	CLAIM_STATUS_DESC	CURNT_NUM	FROM_TOOTH_CODE	LICENS	
0	361773704	"Langeworth, Nikolaus and Koss"	140796643	2020-06-18	D7922	57.6000	PD	Paid	4460	29	68636
9	334980790	Roppe and Sons	473758554	2020-06-10	D0140	66.6000	PD	Paid	5360	4944	74798
8	465296568	"Zulauf, Wolff and Andersen"	948841833	2020-05-23	D1110	-22.2000	PD	Paid	5627	4944	432
17	315401121	"Berry, Daniel and Hines"	166579481	2020-04-19	D0801	52.4000	PD	Paid	6150	J	97333
13	312114880	"Purdy, Guskowski and Jerde"	428967829	2020-04-22	D0801	30.3000	PD	Paid	7713	12	63736
13	403907925	Roch and Sons	981631278	2020-11-21	D0383	32.5000	PD	Paid	3609	20	77648
23	462311921	"Hansmann, Hazel and Rau"	423350399	2020-01-31	D8981	44.5000	PD	Paid	7447	5	12239
07	334982302	"Spencer, Wolff and Boehm"	901612438	2020-01-27	D5895	11.6000	PD	Paid	8098	T	75888
03	488812434	"Marvin, Paucok and Hill"	285243812	2020-07-13	D2957	21.0000	PD	Paid	2979	I	68695
36	337971872	"Sharshan, Williamson and Prior"	605103185	2021-13-14	D2150	81.3000	PD	Paid	7493	15	70883

Informational Data

<input type="checkbox"/> State	City	Provider	Provider ID	Peer Group	Risk Score	Total Plan Pay	Total Service Date	Total Patient C...	Total Treatment
<input type="checkbox"/> MI	Lansing	"Davis, Westroff ...	1125040	5	8	285123.39	173	2844	1357
<input type="checkbox"/> MI	Berlin Creek	Munze LLC	1127680	5	9	527403.25	214	1388	1451
<input type="checkbox"/> MI	Detroit	Ledner Inc	1133378	3	9	138270.4	240	838	676
<input type="checkbox"/> MI	Farmington	"Waters, Stroma...	1131313	1	8	22907.96	81	325	147

Delete:

Generate CSV

Generate PDF

The Capstone Experience

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What's left to do?

- Features
 - Backend Indexing
 - Snowflake
- Other Tasks
 - Optimization
 - Style Changes
 - Roosevelt colors on plots
 - PDF export changes
 - Text formatting
 - Refactor Code



Questions?

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