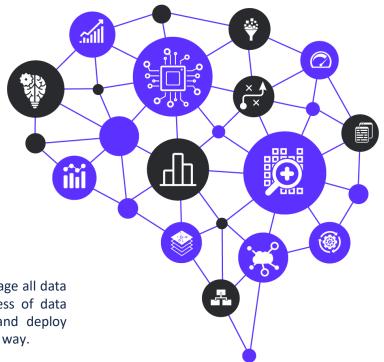


Operationalize AI at Scale

Katonic MLOps platform is a Collaborative platform with a unified UI to manage all data science in one place. The Platform combines the creative scientific process of data scientists with the professional software engineering process to build and deploy Machine Learning Models into production safely, quickly, and in a sustainable way.







Katonic.ai Snapshot

10 +

2

Customers

Patents

21.3B

Serviceable Market

Company

Founded in Sydney , Australia in 2020 **Backed by :** Microsoft for Startups , Ausindustry ,

Aditya Birla Innovation Fund

Key Customers











Technology Partners













System Integrators



























Leadership Team of AI and Business Experts

with a good mix of enterprise and start-up experience



Prem Naraindas Founder and CEO 20 Years Experience TCS, HPE, DXC



Gireesh Ramji Chief Strategy Officer 20 Years Experience Merrill Lynch , Barclays , Morgan Stanley , Eyeota



Nitin Deshpande
Country Head: Sales and Operations, India
36 Years Experience
DXC, HPE, EDS, Genpact, L&T



Subhrajit Mohanty
Director , AI
10 years' experience,GE ,
Infosys , Grand Thornton



Ajit Patwardhan
Sales Director - India
30 Years Experience
IBM , Mphasis , DXC

Advisors



Dhananjaya Tambe
EX DMD, CIO State Bank of India



Dr Sunil Rai
Vice-Chancellor of the University of
Petroleum and Energy Studies



Avinash Velhal
CIO, ATOS Global



Sriram Naganathan Ex CIO Liberty General Insurance





"Al is moved from the innovation lab to strategic imperative and Al-enabled innovation is now mission critical for organizations"

-A

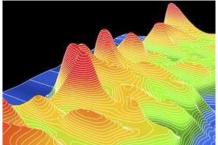
Winning with Al Now



Financial servicesFraud detection, ID verification



GovernmentCyber-security, smart cities and utilities



EnergySeismic and reservoir modeling



RetailVideo surveillance, shopping patterns



Health
Persphalized medicine, image analytics



Consumer tech Chatbots



Service providers Media delivery





Enterprises are Accelerating Al Investments

Okay, the GPT-3 hype seems pretty reasonable

Alex Wilhelm @alex / 11:56 AM PDT • March 17, 2021

Covid-19 Devastated Some Industries But Accelerated ALUse By Companies Across The Country

Reporting by Helen Popkin, Aayushi Pratap and Nina Wolpow

(Forbes, 4/26/2021)

'It will change everything': DeepMind's Al makes gigantic leap in solving protein structures

Google's deep-learning program for determining the 3D shapes of proteins stands to transform biology, say scientists.



L PDF version

86%

Of organisations have increased their ML Budgets for 2021

A.I. Here, There, Everywhere

Many of us already live with artificial intelligence now, but researchers say interactions with the technology will become increasingly personalized. (NYT, 2/23/2021)

IBM CEO: 'Every company will become an Al company'

By Joel Khalili about 1 year ago

(Techradar, Mid 2020)

76%

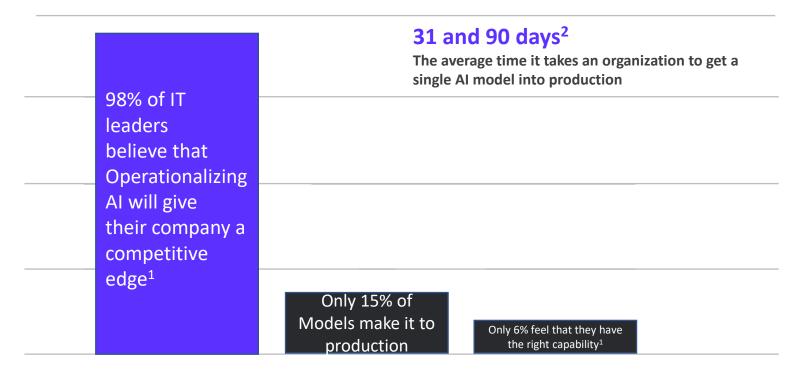
YoY increase in the average number of data scientist employed by organisations.



Organisations will spend \$105B on AI/ML this year, excluding the Wages



And yet... Organisations Struggle To Operationalize Al



^{1. &}quot;Operationalize Machine Learning" report, Forrester, June 2020"



Chief Data and Analytics Officers are suffering

I want my Data Science team to deliver value

Data Scientist struggle to go from small sample data to full size data

I need to tie my innovation budget to production solutions

Our Engineers and Data
Scientists don't speak the
same language

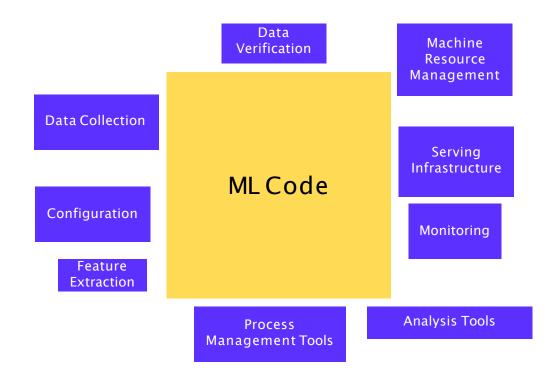
Maintaining data science in production is a nightmare.

Our data scientists only use notebooks. Can we deploy them in productions.

We have an extensive existing infrastructure and none of the solutions on the market work on it



Perception: Al Application is mostly about ML Model



Credit: Hidden Technical Debt of Machine Learning Systems, D. Sculley, et al.



Building the first proof-of-concept version of a machine learning system can be pretty easy...

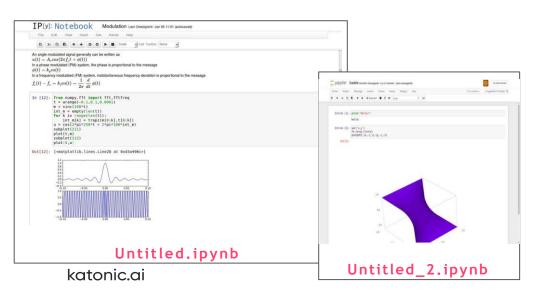




But when you try to productionise...

Problems show up when you try to scale out, and keep a system in long-term continuous operation

Notebooks (by themselves) don't scale!

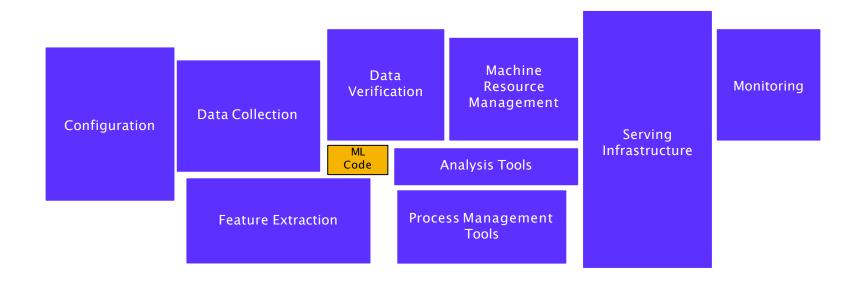








In reality...ML Code is tiny part in this overall process



Credit: Hidden Technical Debt of Machine Learning Systems, D. Sculley, et al.



13

In reality...ML Code is tiny part in this overall process

Model Training is not the end Goal

Credit: Hidden Technical Debt of Machine Learning Systems, D. Sculley, et al.

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The ML Development and Deployment Cycle



Bulk of effort today is in the left side of this process (development)



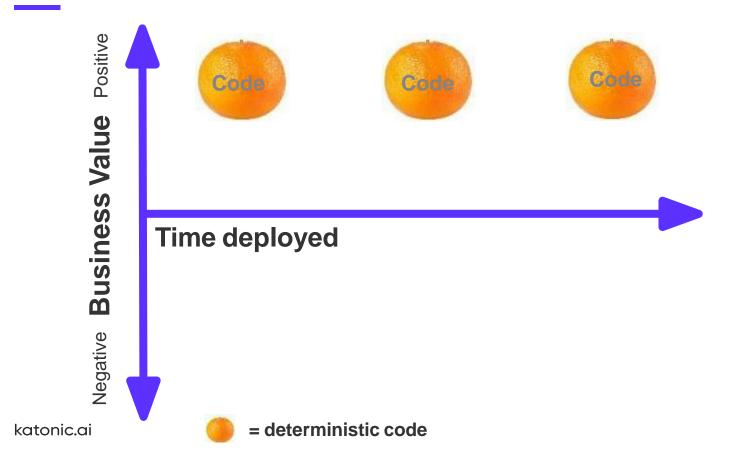
The ML Development and Deployment Cycle



Bulk of effort today is in the left side of this process (development)

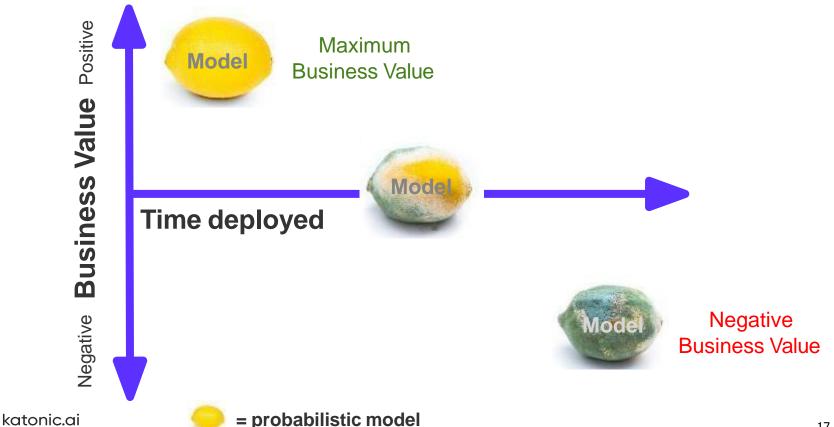
-AC

Code is deterministic and always runs as written



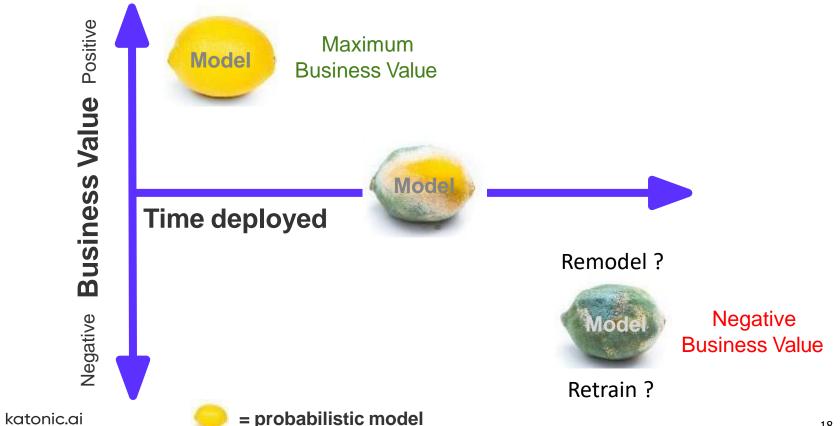
ML model performance can decay over time





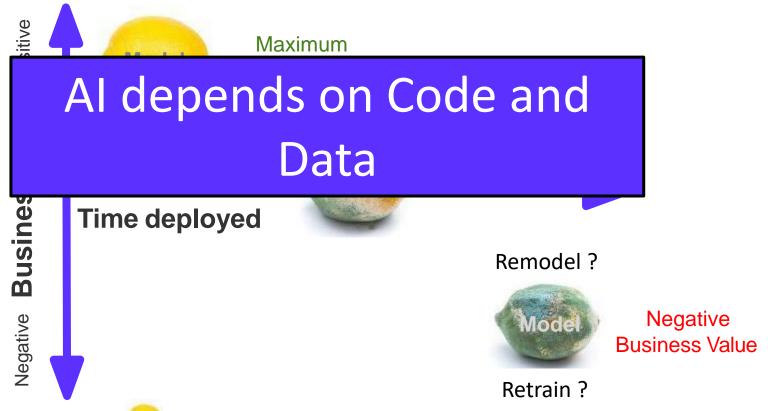


ML models must be monitored, retrained, and remodeled.





ML models must be monitored, retrained, and remodeled.









Devops alone is not enough

Continuous Monitoring and Continuous Training is also needed



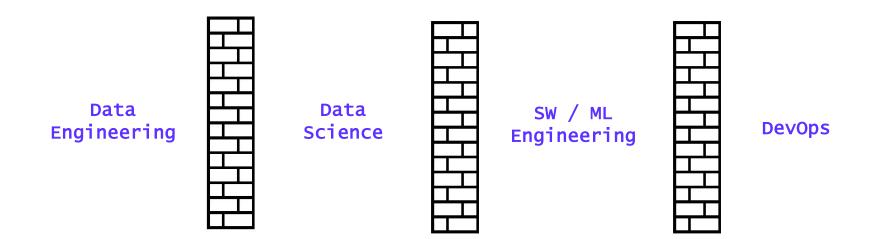
Business Value

Retrain?



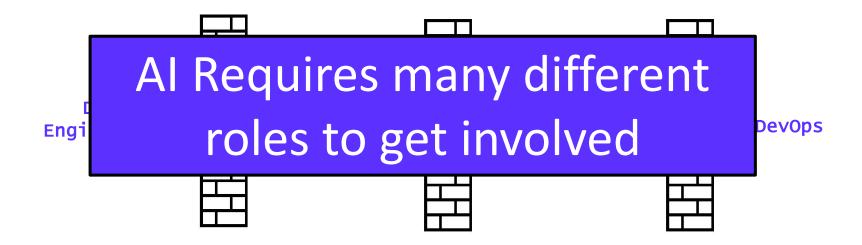


The ML lifecycle needs to jump across many walls





The ML lifecycle needs to jump across many walls



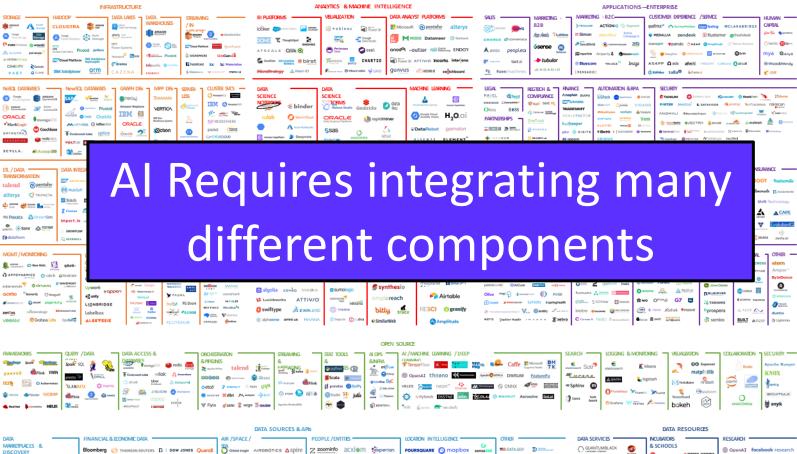














Demvst melissa

Quantoast BASIS SAFEGRAPH

MarineTraffic

O.∓#08 Synspective

cuebio Si ourstruste

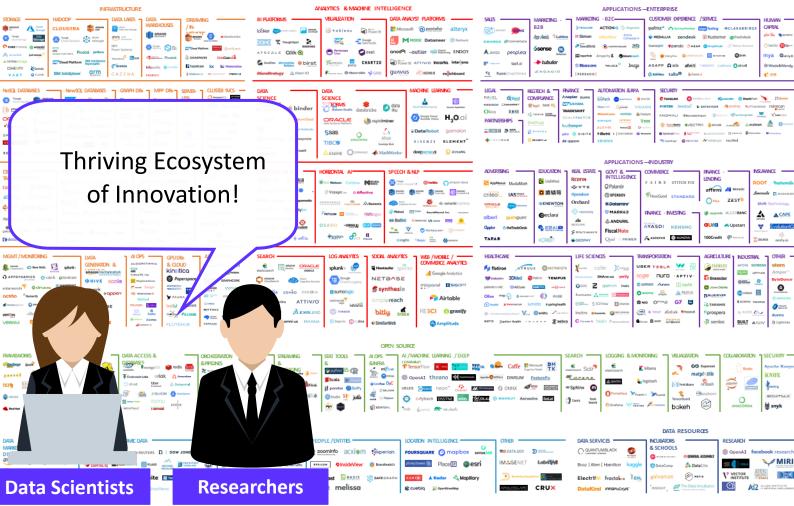
MAGENET Labella

Booz | Allen | Hamilton | kaggir

A DataElite

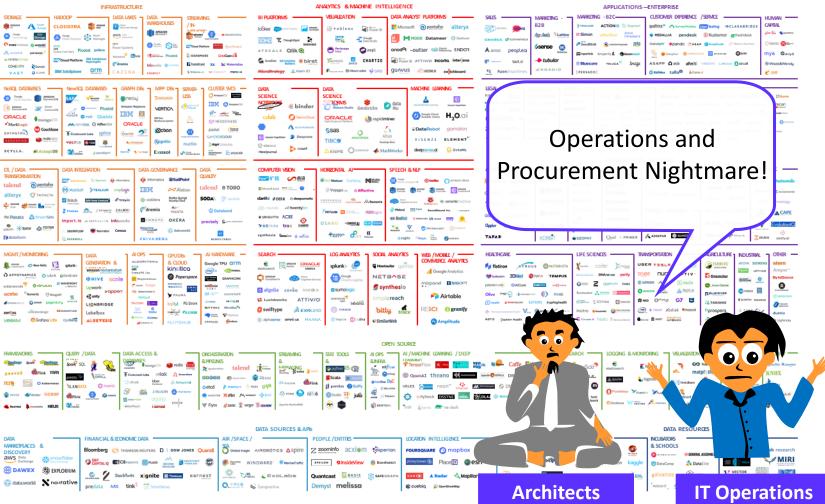
ataworld narrative

DATA & AI LANDSCAPE 2020





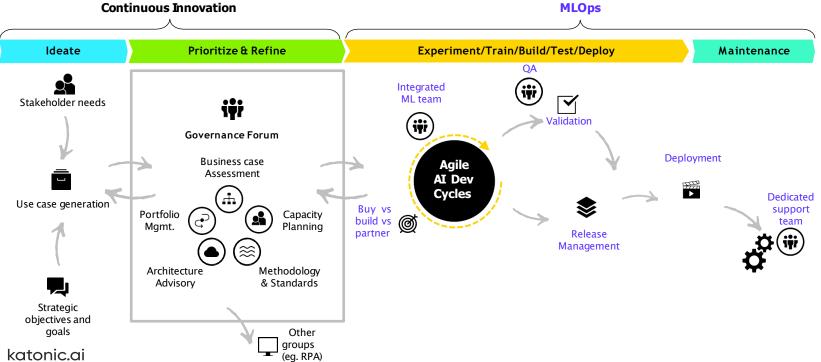
DATA & AI LANDSCAPE 2020





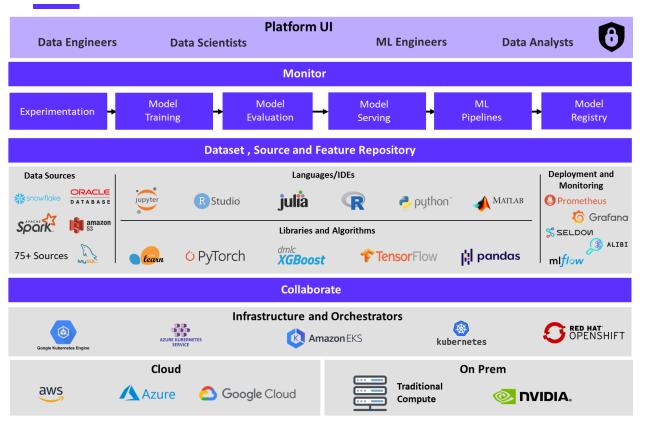
Solution: MLOps will enable continuous Al innovation

Collaborative solution unifying Machine Learning System development and Operations supporting end to end Machine Learning Lifecycle with ability to access data at scale from any source





Introducing Katonic MLOPs Platform



Creative scientific process of data scientists

+

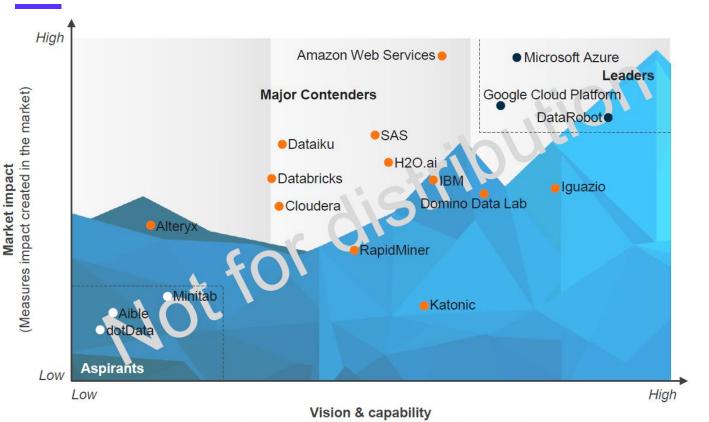
Professional software engineering process

=

Releasing Models into production safely, quickly, and in a sustainable way.



Katonic recognised as a major Contender by Everest



Leaders

Major Contenders

Aspirants

Vision & capability
(Measures ability to deliver products successfully)



Our Unified Platform for Operationalizing Al

Accelerate Experimentation

Data Scientists can build experiments and develop highquality models with self-serve access to the latest tools and scalable compute.

Security and Control

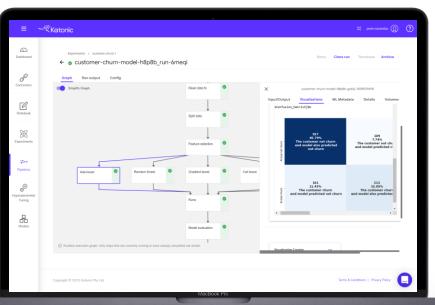
Secure multi-tenancy with integration to enterprise authentication mechanisms

Connectors

Connect data from any cloud, onpremises, or proprietary system

Deliver Models to Production

Machine Learning Engineers Deploy models in one-click on industrial-grade, auto-scaling, Kubernetes-based infrastructure.



Monitor and Govern

Complete visibility with Real-time insights and alerts on model performance with enterprise grade security and Governance.

Flexible

Open and flexible solution that integrates with any existing data infrastructure and systems.

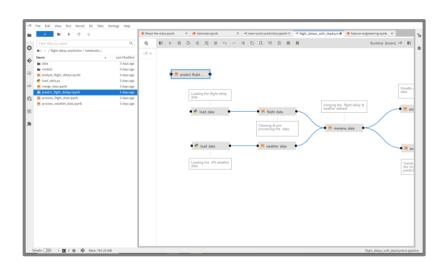
Scalable

Cloud native with Kubernetes Foundation to support modern elastic and scalable infrastructure



Addressing two different audiences

A Low Code / No Code UI for analysts & engineers



Multi-language Notebooks approach for Data scientist





Operationalizing AI has Big Business Impact

12x

FASTER DEPLOYMENTS

Faster and more reliable way to deploy and improve models in production.

85%

REDUCTION IN MANUAL LABOUR

Reduction in manual labour costs through higher productivity of the data science team.

MORE COST-EFFECTIVE INFRASTRUCTURE

Reduction in computing costs through efficient management of data science work loads.



DEMO









Head of Analytics at DataBank





Customers are Leaving dataBank





Use Machine Learning to Reduce Churn





Raw data



Demographic data

Name, age, gender, address etc.



Account Information

Bank account name, Location etc.



Property Details

property ID, property type, site location, Quantity, Price



Raw data



Demographic data

Name, age, gender, address etc.



Account Information

Bank account name, Location etc.



Property Details

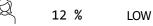
property ID, property type, site location, Quantity, Price

Outcome

0

Customer	Prol	oabil	ity	of	Chu	ırn
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1 1	
83 %	HIGH







Raw data



Demographic data

Name, age, gender, address etc.



Account Information

Bank account name, Location etc.



Property Details

property ID, property type, site location, Quantity, Price

ML Model	Outcome			
	Customer	Probability of	Churn	
Features Predictio	0	58 %	MEDIUM	
	n 💆	83 %	HIGH	
		12 %	LOW	
	0	39 %	LOW	



Raw data Types of Features ML Model Outcome **Demographic data** Customer Probability of Churn **Transformations** Name, age, gender, address etc. e.g. Category Encoding 58 % MEDIUM **Account Information** 83 % HIGH Prediction Bank account name, Location etc. 12 % LOW **Property Details** 39 % LOW property ID, property

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type, site location, Quantity, Price



Raw data



Demographic data

Name, age, gender, address etc.



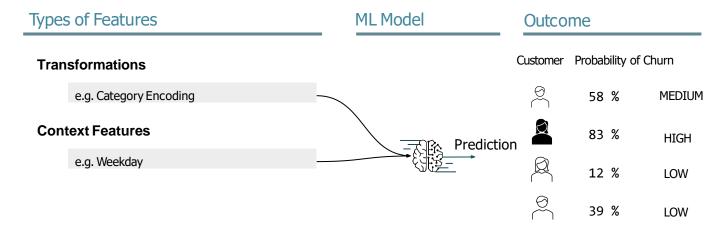
Account Information

Bank account name, Location etc.



Property Details

property ID, property type, site location, Quantity, Price





Feature Augmentation

e.g. Weather

Raw data Types of Features ML Model Outcome **Demographic data** Customer Probability of Churn **Transformations** Name, age, gender, address etc. e.g. Category Encoding 58 % MEDIUM **Account Information Context Features** 83 % Prediction HIGH Bank account name, e.g. Weekday Location etc. 12 % LOW

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Property Details

type, site location, Quantity, Price

property ID, property

LOW

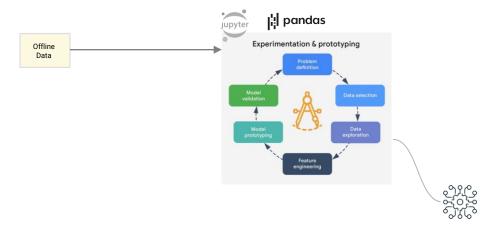
39 %



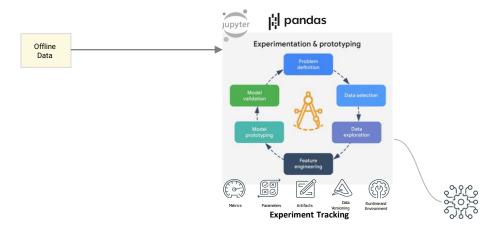
Raw data Types of Features ML Model Outcome **Demographic data** Customer Probability of Churn **Transformations** Name, age, gender, address etc. e.g. Category Encoding 58 % MEDIUM **Account Information Context Features** 83 % HIGH Prediction Bank account name, e.g. Weekday Location etc. 12 % LOW **Feature Augmentation Property Details** 39 % LOW property ID, property e.g. Weather type, site location, Quantity, Price **Pre-computed Features**

e.g. Purchases last 7, 14, 21days

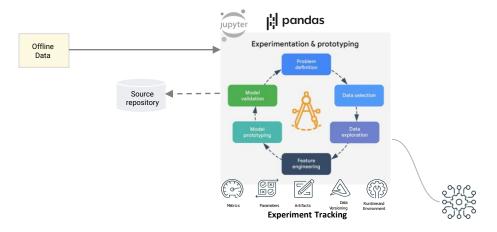




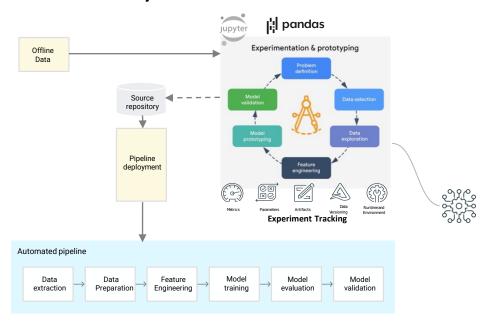






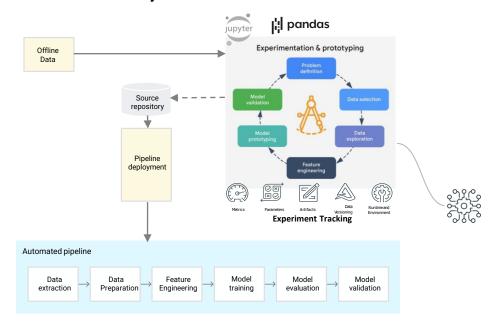




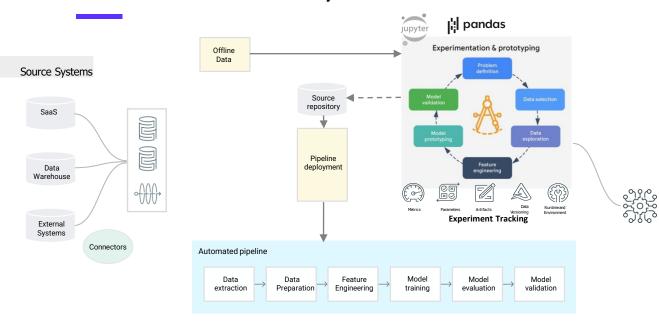




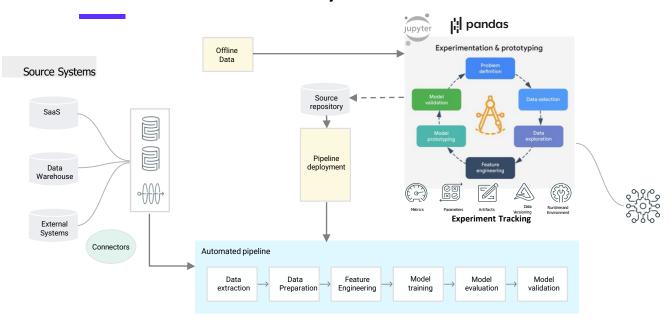




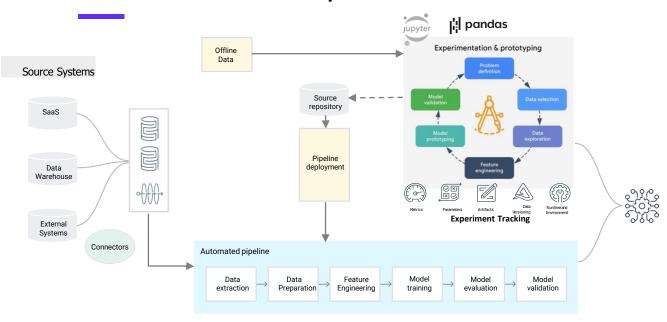




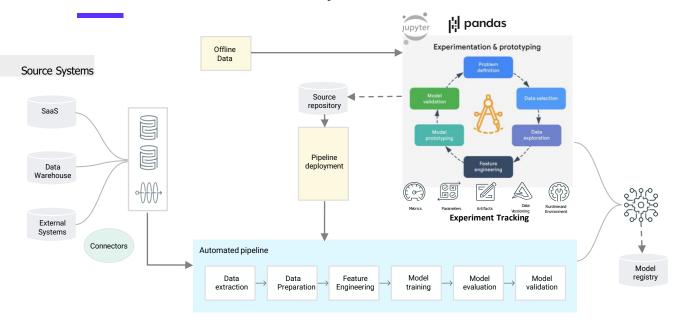




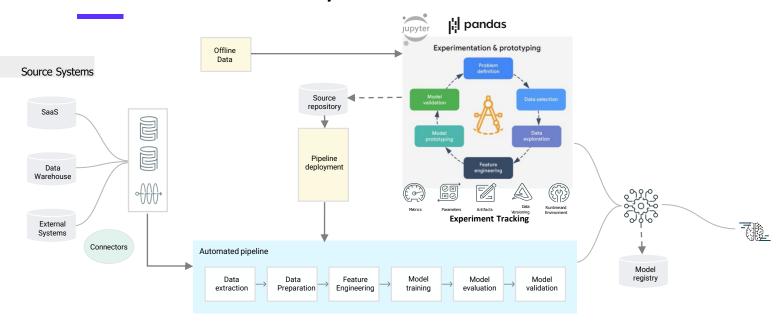




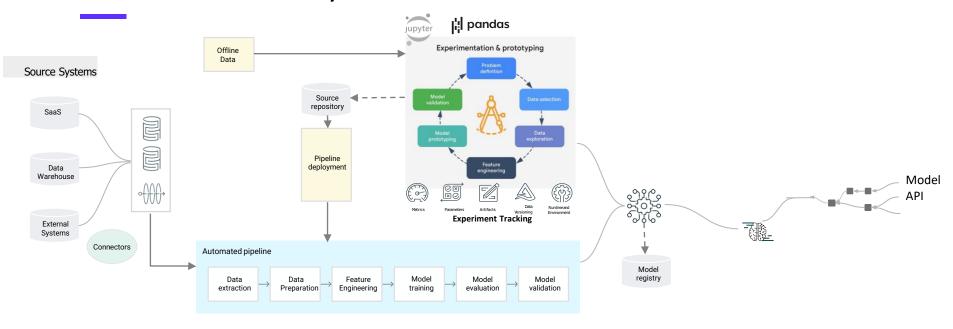




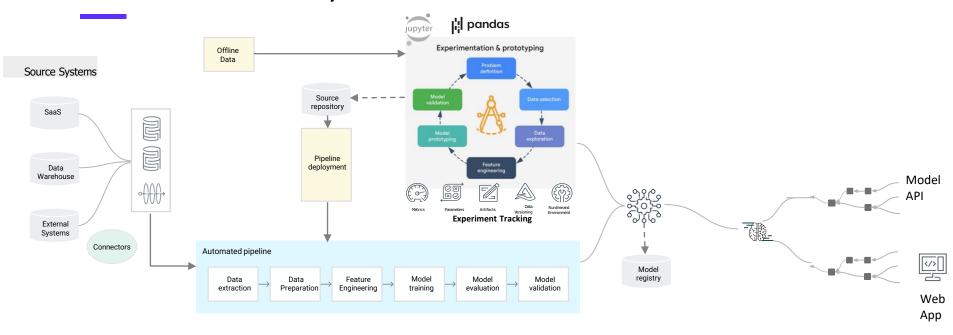




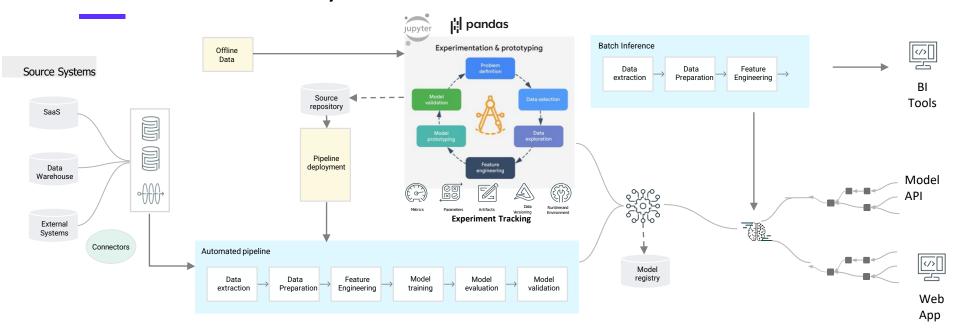




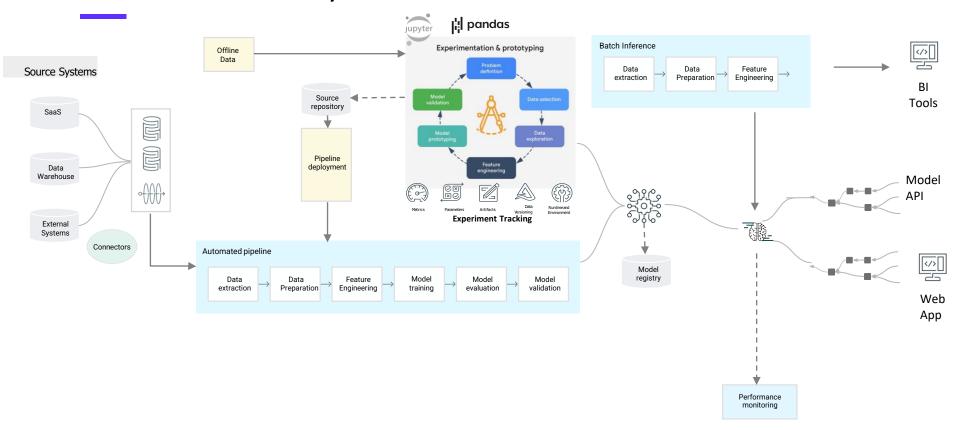




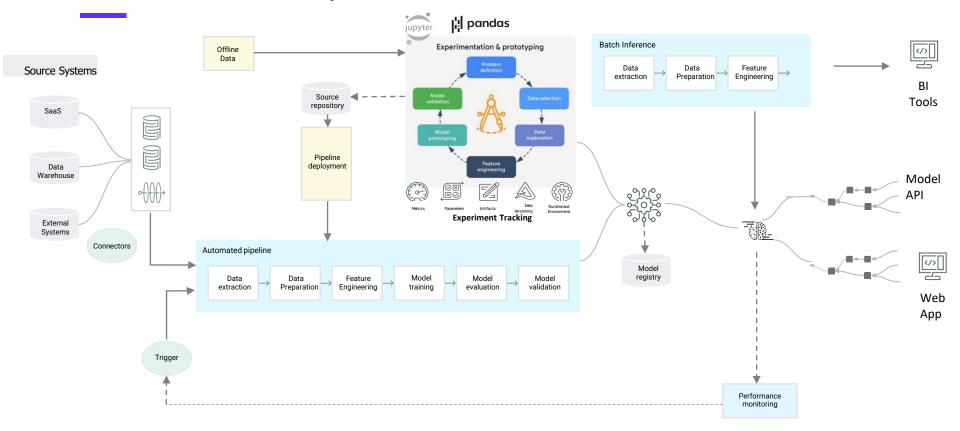




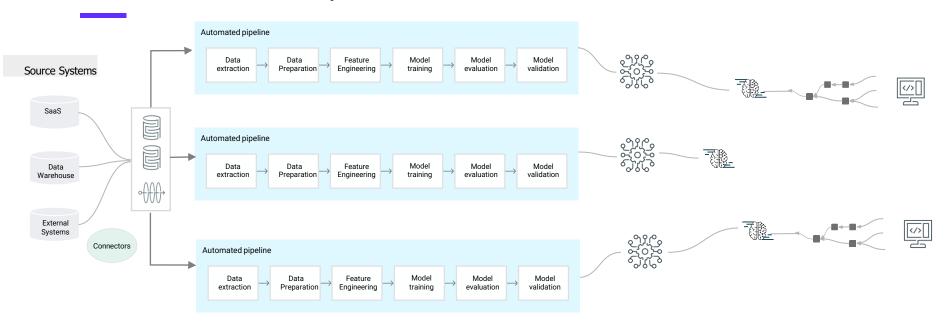




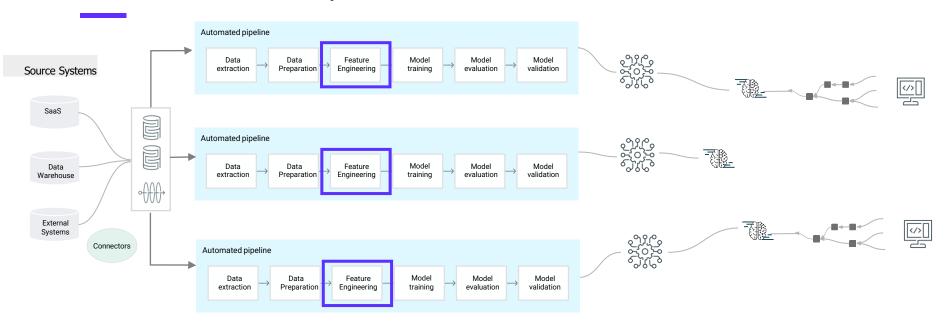




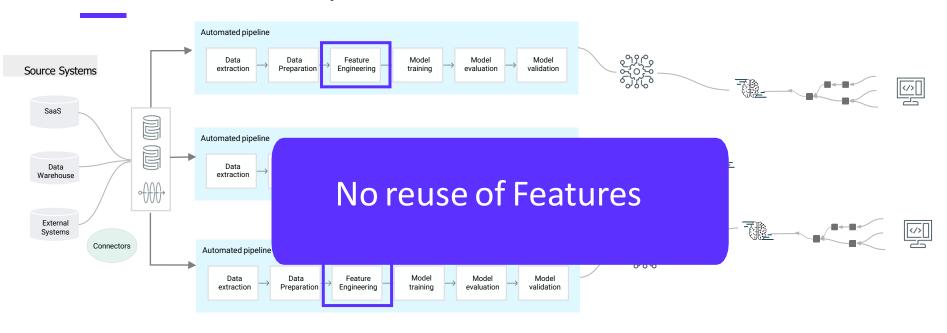




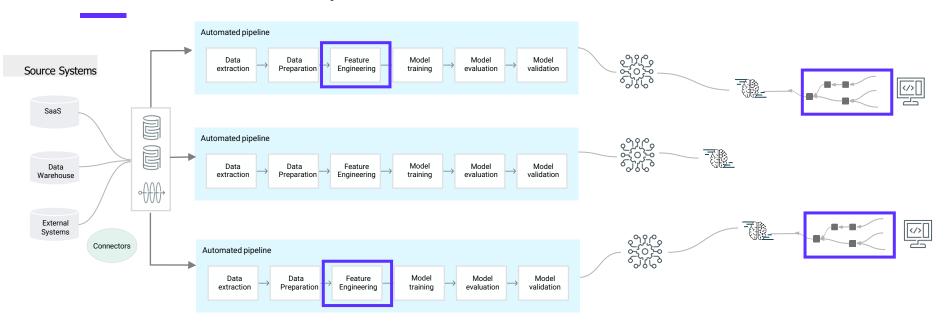






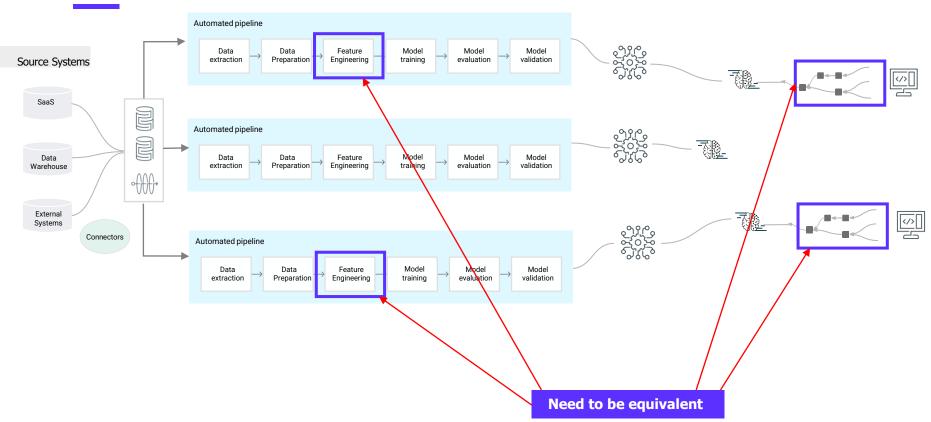




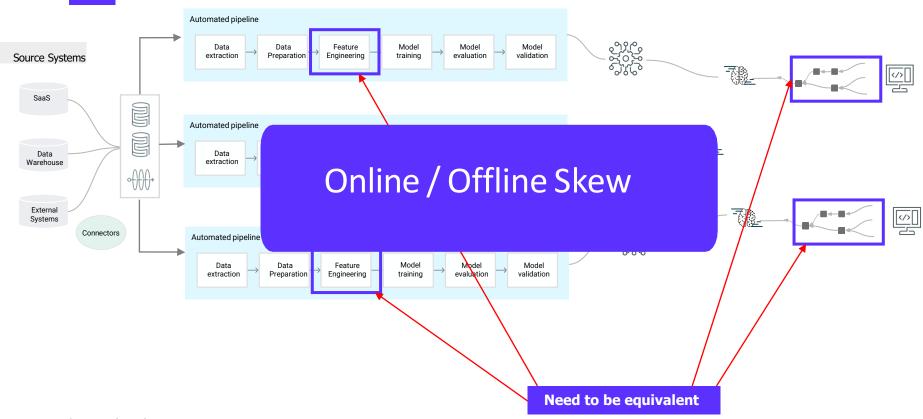


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The Al Model Life Cycle

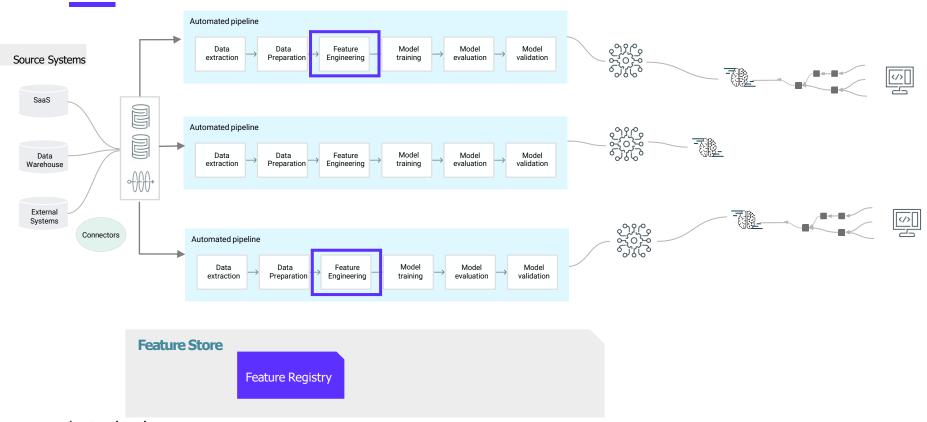






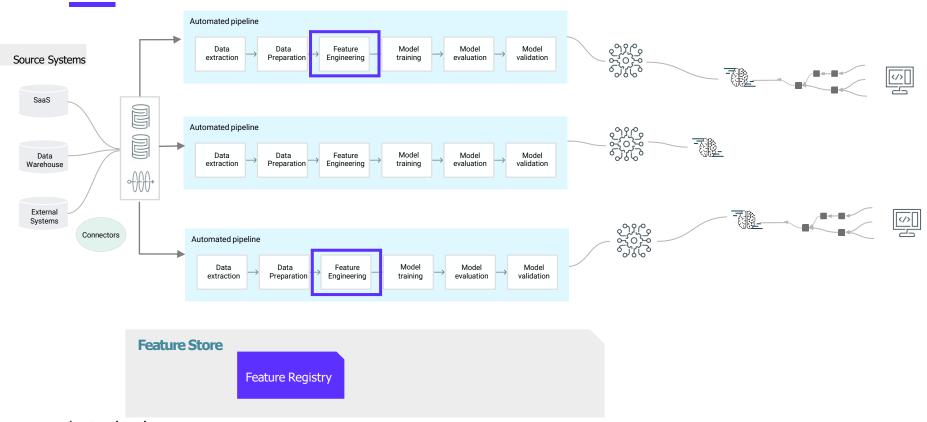
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The Al Model Life Cycle

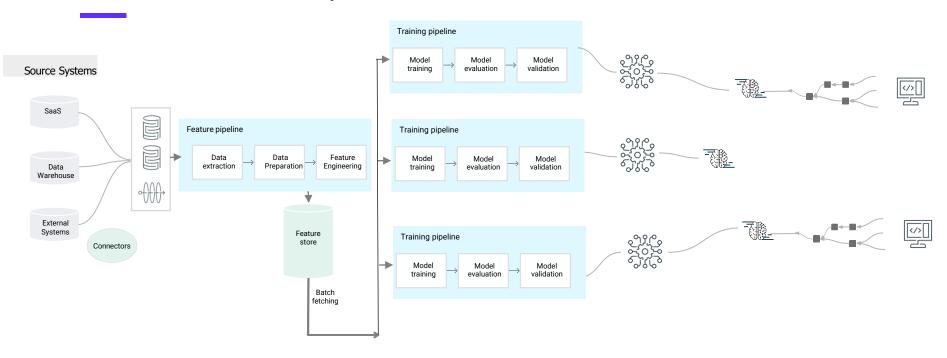


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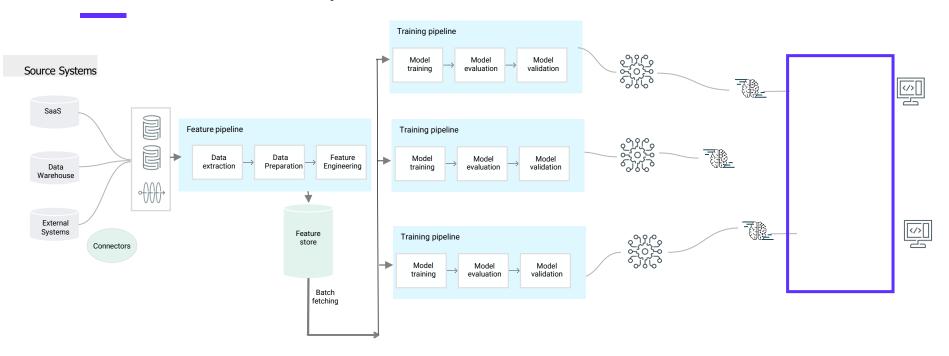
The Al Model Life Cycle



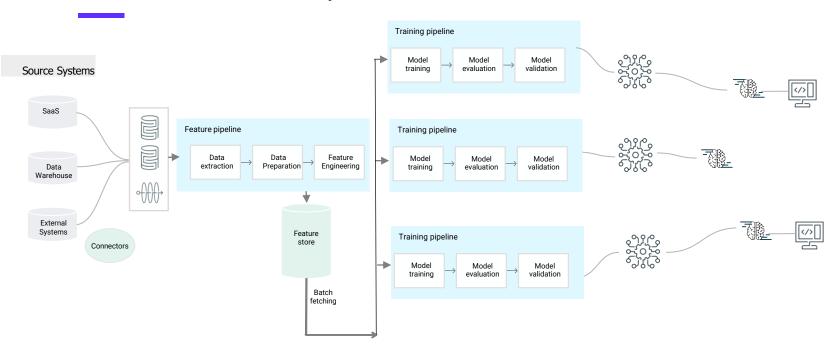




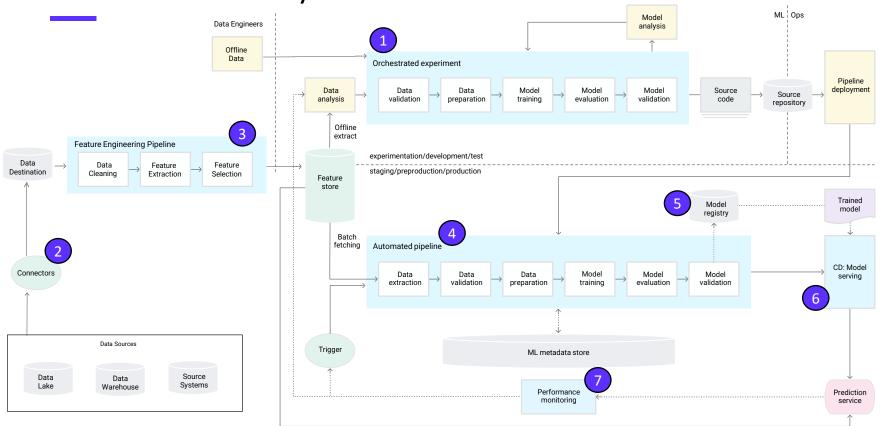














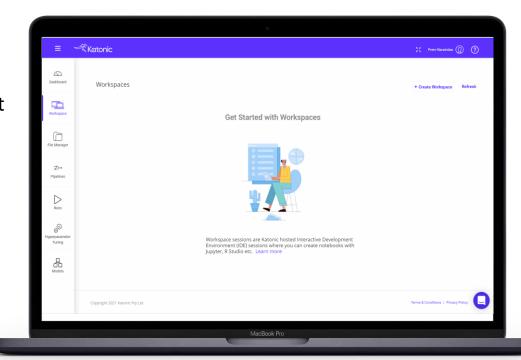
Key Features



Cloud Hosted Workspaces

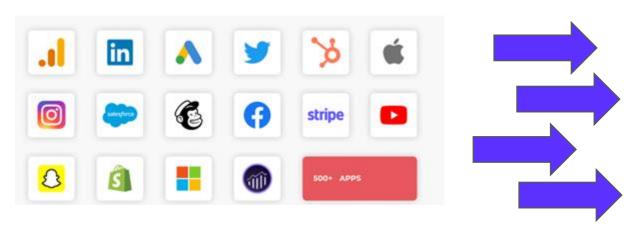
New containerized environments are provisioned on-demand with just a few mouse clicks—whether they're transient for development and testing, or long-running for a production workload.

- Create New Tasks in any language
- Collaborate with code across teams
- Use any frameworks



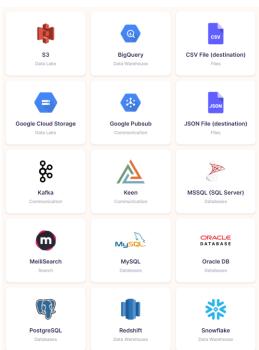


Operationalize Al at Scale – Data Ingestion at ease



Your data, whenever and wherever you need it ..

In a few clicks, send your data to any reporting tool or data warehouse or bring all your data into MLOps Platform.



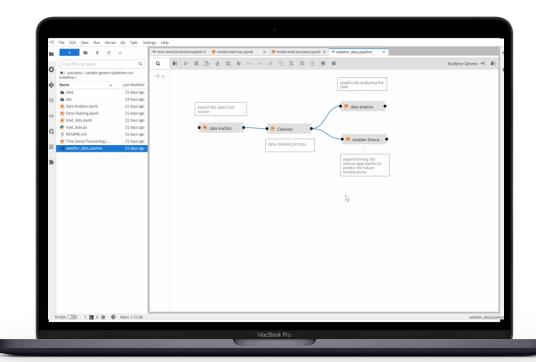


Feature Store to serve, share and re-use ML features.

 Share and reuse ML features across use cases

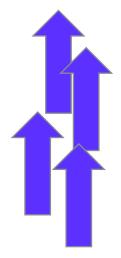
 Serve ML Features at scale with low latency

Alleviate training serving skew



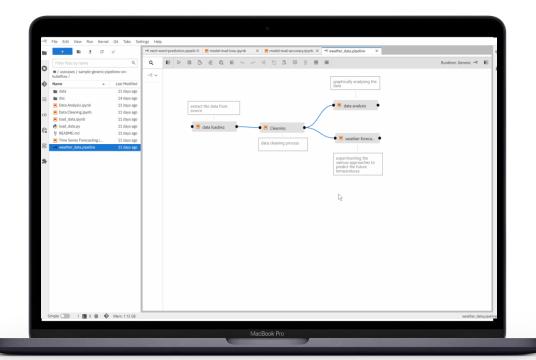


Operationalize AI at Scale - Data Preparation and Transformation.



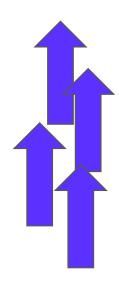
Make your Data Business Ready

Transform and enrich data for analytics and machine learning — at scale, and across multiple sources with a few clicks or with SQL/Python.



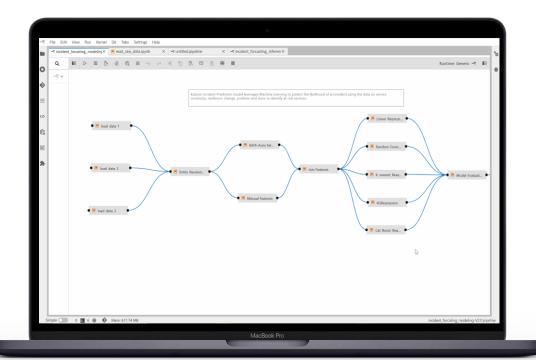


Power of data science to business intelligence.



Self Service Data Science

Machine learning in the hands of analysts and citizen data scientists with visual and explainable automated ML modelling.

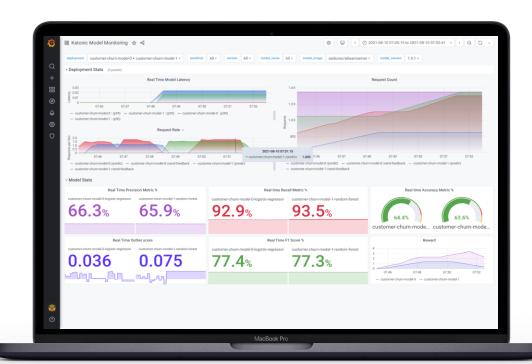




Continuous Model monitoring

Monitor the effectiveness and efficiency of a deployed model with a simple dashboard integrated with Model Registry and Feature Store.

- Get real-time insights and alerts on model performance and data characteristics.
- debug anomalies and initiate trigger to execute ML production pipelines to retrain the models with new data, depending on your use case
- Trigger model re-training pipeline or collect relevant training data to address performance degradation.

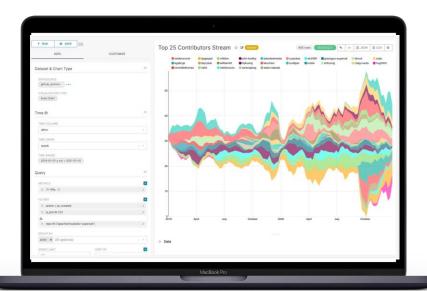




Rich visualizations and dashboards

Explore

Explore your data using the array of data visualizations.



View

View your data through interactive dashboards.

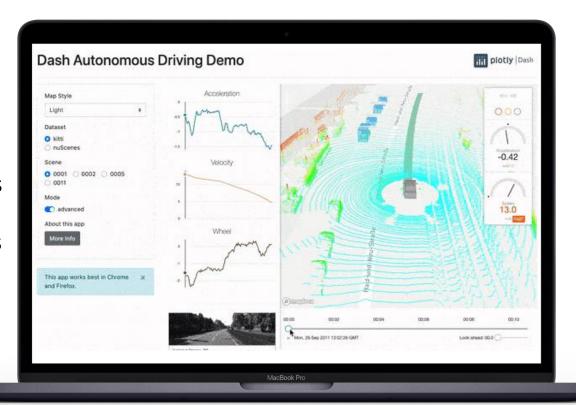




Operationalize AI at Scale - Empower Your Organization to Use AI

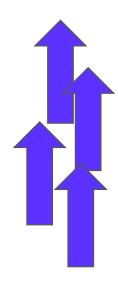
Production-grade apps for your business

Converts Python scripts to production-grade apps for your business to put complex Python analytics in the hands of business decision makers and operators.



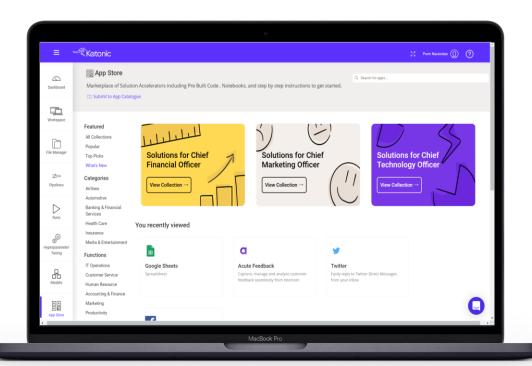


Accelerate your Al Journey



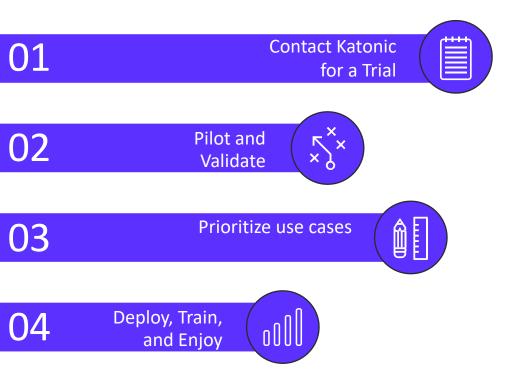
Rapidly build solutions for your Business Goals

Marketplace of Solution Accelerators including Pre Built Code, Notebooks, and step by step instructions to get started.





Get started with AI today with AI



Begin Your Proof of Concept

Engage Katonic to explore the benefits of AI and Automation into your Data Science process

- Try it with your own data
- Guided evaluation for maximum success
- Pick the right use case

Contact: sales@katonic.com

Thank You

