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Accelerate your ML value creation from months to actually hours with no-code/low-code ML tools

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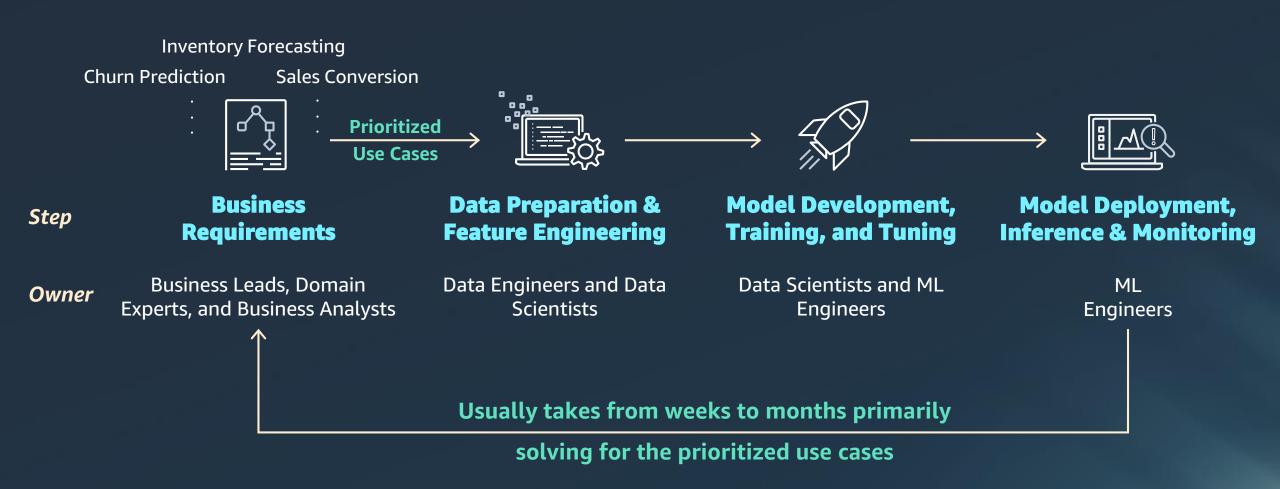
Senior Solutions Architect Amazon Web Services

Agenda

- 1. Current state and ML issues
- 2. Democratizing Machine Learning (ML)?
- 3. Low-code/no-code use cases
- 3. Overview of AWS low-code/no-code ML offerings
- a) Amazon SageMaker Canvas (Generate predictions no-code ML) demo and features
- b) Amazon SageMaker Data Wrangler (Visual data prep for ML) demo and features
- 4. Recap and key takeaways
- 5. How to get started



How ML drives value creation today





Democratizing machine learning

Tabular Data







Tables
Tables
Tables
Tables
Tables
Tables











Business Leader and Analyst

Data and ML Team

Lots of tabular data, now what?

Improve business

Many use-case and needs explainability?

Lacks ML knowledge and learning curve is high

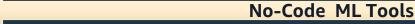
Improve collaboration and productivity

Data science teams are oversubscribed

Multiple data sets and formats

Repetitive tasks, How to scale ML?

IL Tools No-Code / Low-Code ML Tools





Low-code / No-code use cases



- Credit risk scoring
- Delayed payments prediction
- Fraud detection
- Portfolio optimization
- Account payables automation



- Demand forecasting
- Inventory planning and scheduling
- Delivery time forecasting
- Predictive maintenance



- Sales conversion
- Sales forecasting
- Propensity to churn
- Customer lifetime value prediction
- · Marketing mix modeling



- Increase productivity
- Ease of use
- Bring ML driven products to market faster
- Scaling from experimentation to production

and many more...



AWS offering on low-Code / No-code ML

Data preparation & Model development, Model deployment feature engineering training, and tuning inference & monitoring **Business** requirements Amazon SageMaker Canvas A dedicated no-code workspace for business analysts to generate ML-powered predictions CXO. **Business** A visual point-and-click interface that allows analysts to generate accurate ML predictions on their own — without Teams, requiring any machine learning experience or having to write a single line of code **Analyst** Collaboration Amazon SageMaker Studio A dedicated workspace for data engineers, data scientists and ML Ops teams to collaborate and bring ML to market faster **Data Wrangler** A faster, visual way to aggregate and Data Many prepare data for machine learning Automation Science, deployment of ML Ops options **Autopilot ML Teams** AutoML capability that automatically prepares your data, as well as builds, trains, and tunes the best machine learning models for your tabular and time-series datasets SageMaker **JumpStart Pipelines** Pre-built solutions and a model zoo of pre-trained and easily tunable state-of-the-art models for Computer Vision, and Natural Language Processing



Amazon SageMaker Canvas

Build ML models and generate predictions - no code required



Quickly access and prepare data for Machine Learning



Built-in AutoML to build models and generate predictions



Share ML models and collaborate with data science teams



Usage-based pricing to avoid licensing fees and reduce TCO



Demo



Amazon SageMaker Canvas – Features

Browse, import, and join data - local disk, Amazon S3, Amazon RedShift, and Snowflake

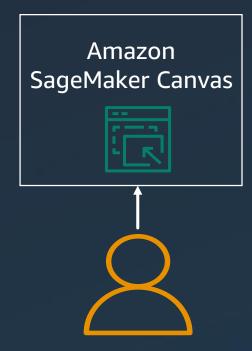
Built-in data cleansing and data adjustments

Run what-if scenarios, or get predictions on an entire dataset

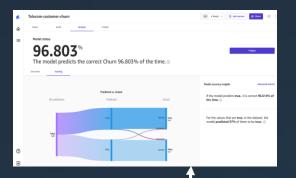
Single sign-on support

Self-paced workshop

Support tabular and time series data



Model preview



Automatically build an accurate model for your dataset

Get the first ML model in minutes.
Review advanced metrics and feature

Share and bring your ML Model built anywhere

Getting started guide

Business leaders, analyst, CXOs, data scientists



Amazon SageMaker Data Wrangler

Low-code / No-code tool for interactive and production-scale data preparation



Connect to a data source & import data for interactive data preparation



- Visualize, analyze, cleanse, and enrich data
- Build & visualize data transformation flows
- Visual data prep assistant in Notebooks



Run data transformation flows in production-scale on large data sets or deploy data flow to serial inference end point

Export to Amazon S3, Amazon SageMaker Feature Store, Amazon SageMaker Autopilot or Pipelines for end-to-end machine learning



Demo



Amazon SageMaker Data Wrangler - Features

Connect to multiple data sources:

Amazon S3, Amazon EMR, Amazon

Athena, Amazon Redshift, Databricks,

Snowflake and 40+ SaaS platforms

Support file formats: CSV, Parquet, JSON & JSONL, ORC, Database tables <u>Custom transforms in PySpark, SQL,</u> <u>Pandas and Python UDFs</u>

Get data insights: ML powered exploratory data analysis (EDA)

300+ built-in transformations (no code)

Build, visualize, automate: Data flow

Reuse: Data flow

Save cost when not using Data Wrangler: Shutdown

One click launch, schedule data preparation jobs: hourly, daily, weekly and custom

Self-paced workshop

Amazon SageMaker Data Wrangler





Data Scientists, ML Teams, Developers

Train & deploy with SageMaker AutoPilot

Export and deploy data work flow as:

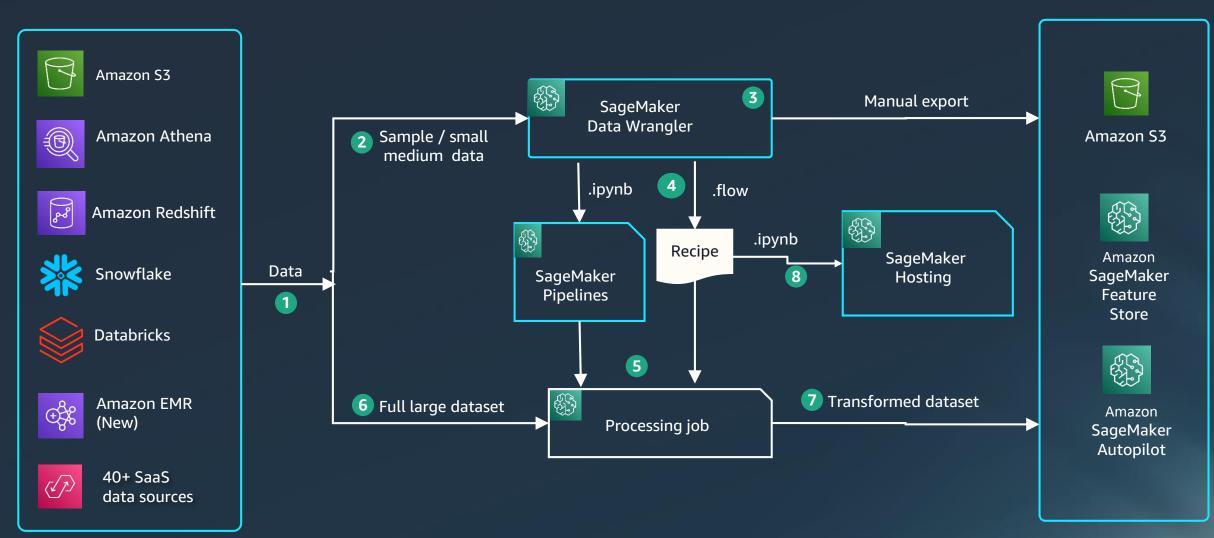
- -Jupyter Notebook
- -SageMaker Inference endpoint
- -SageMaker pipelines
- -Sagemaker Feature Store
- -Python code

Security and permissions

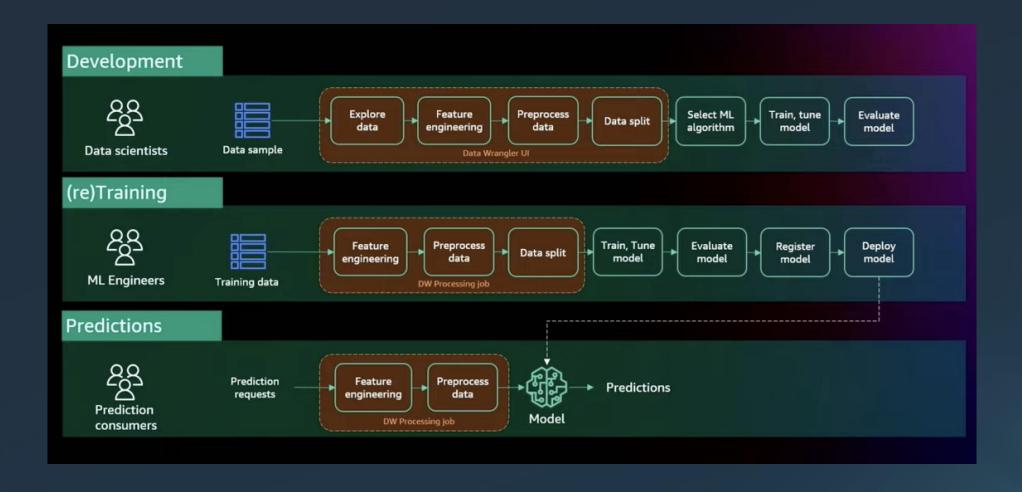
Getting started guide



Accelerate data preparation with Amazon SageMaker Data Wrangler



Amazon SageMaker Data Wrangler in your organization





Recap and key takeaways

Analysts / Business Teams - Amazon Sagemaker Canvas

- Get access to a very easy to use no-code environment and get ML-powered predictions without knowing ML, or how to code completely on their own
- Increase trust, as well productionalize models they built using the collaboration between Amazon Sagemaker Canvas and Amazon Sagemaker Studio

Data Science and ML Teams - Amazon Sagemaker Data Wrangler

- Connect to multiple data sources including 40+ SaaS platforms
- Exploratory analysis and build feature engineering pipelines very fast leveraging easy to use visual interface that entails 300+ transformations
- Interactive data preparation and run data transformation flows in production on large datasets
- Export to Amazon S3, Amazon SageMaker Feature Store or pipelines for E2E ML
- Improve productivity, build model faster and at a lower cost

Low-code / No-code ML empowers organizations to scale their ML value creation from months to actually hours



Visit the Data & AI/ML resource hub

Dive deeper into these resources, get inspired and learn how you can use AI and machine learning to accelerate your business outcomes.

- 6 steps to machine learning success e-book
- 7 leading machine learning use cases e-book
- Machine learning at scale e-book
- Achieving transformative business results with machine learning e-book
- Tackling our world's hardest problems with machine learning e-book
- Accelerating machine learning innovation through security e-book
- ... and more!



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