



# Human-Driven AI with **Kanva**

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# Kanva: Better predictions for better decisions

**Kanva** is an innovative software solution that enables domain experts to create state-of-the-art AI **prediction models** based on historical data. Any business scenario where predictions can make a difference is a potential use case, but common ones include predicting customer churn, forecasting service consumption, and predictive maintenance.

## No coding or AI skills required

**Domain expertise** is all that is needed to create powerful regression, classification and forecasting models in **Kanva**, making advanced predictive analytics accessible to professionals across various fields.

## Full ownership

Predictive models in **Kanva** are created from scratch, do not use any external resources or APIs, and are **fully owned** by the customer. This ensures data privacy and gives users complete control over AI assets.

## Runs on your infrastructure

**Kanva** can be installed in any Azure subscription from the Marketplace or an ARM template. Manual and custom installations are also supported.



# Industry Use Cases

## Energy & Utilities



- Energy demand forecasting
- Grid maintenance scheduling
- Renewable energy output prediction
- Usage pattern analysis

## Financial Services



- Credit risk assessment
- Customer churn prediction
- Fraud detection
- Portfolio performance forecasting

## Logistics



- Delivery time estimation
- Fleet maintenance prediction
- Route optimization
- Warehouse capacity planning

## Manufacturing



- Equipment maintenance prediction
- Quality control optimization
- Production yield forecasting
- Inventory demand prediction

## Retail



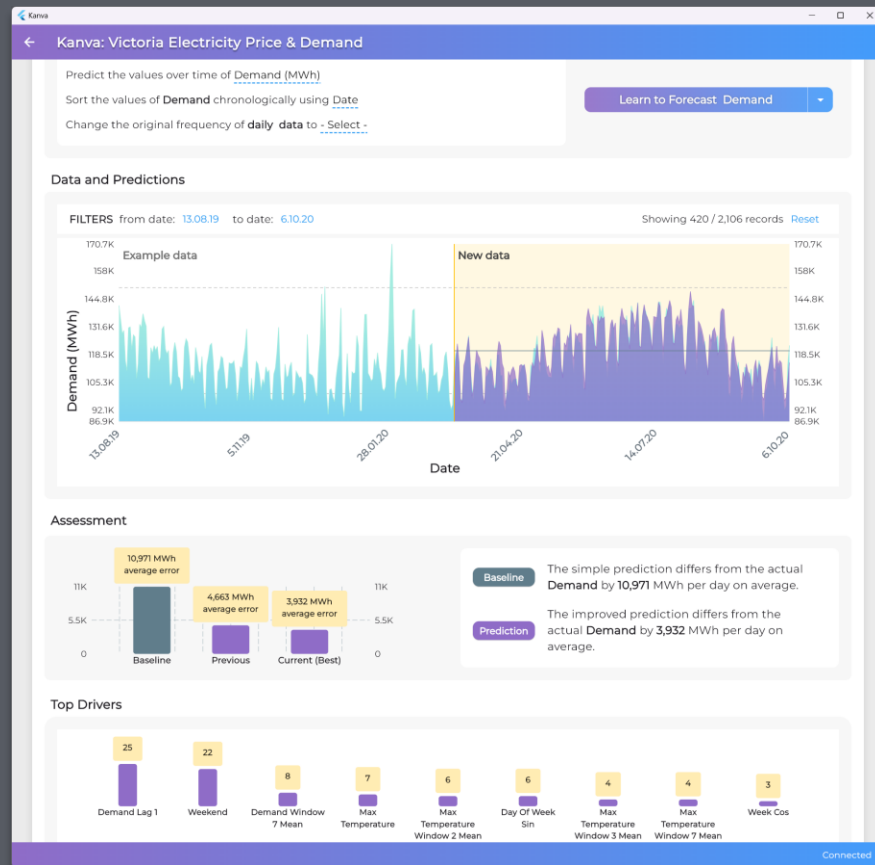
- Sales forecasting
- Inventory optimization
- Customer segmentation
- Price optimization

## Telecom



- Customer churn prediction
- Data consumption forecasting
- Predictive maintenance for network infrastructure
- Medical inventory management

# Kanva: AI-powered forecasts



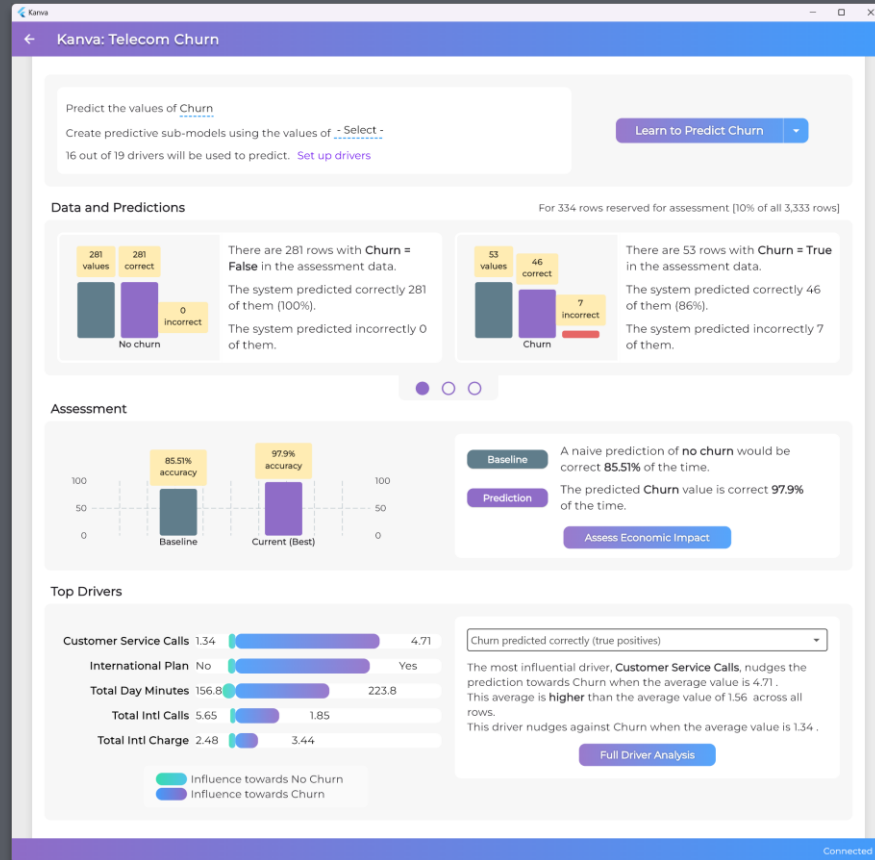
Blue area: actual demand  
Purple area: forecast generated by Kanva.

Kanva enables domain experts to create **AI-powered forecasting models** based on historical data in minutes or seconds, for any quantity that changes over time due to known causes.

In this example, Kanva learned to forecast 1-day ahead electricity demand in Victoria, Australia. It generated a baseline (simple mean) for comparison and translated the results to an understandable statement. Just from patterns in the data itself, it can forecast the demand with an average error of 4,663 MWh; improving over the simple baseline by 6,308 MWh.

The domain expert can **add drivers** to improve the forecast. In this case, by including the maximum daily temperature, the average error has gone down further from 4,663 to 3,932 MWh.

# Kanva: AI-powered predictions



**Kanva** enables domain experts to create **AI-powered regression and classification models** based on historical data.

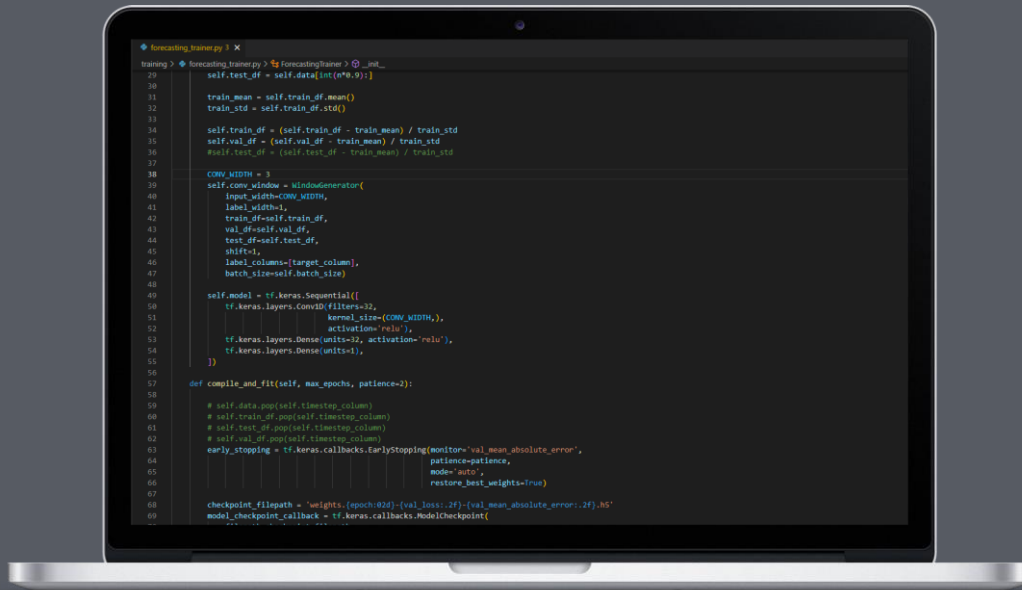
In this example, **Kanva** learned to predict churn for a telecom company. The example data is 3,333 records with 19 attributes.

Out of 53 churn instances in 334 entries with new data, **Kanva** correctly predicts 46 (7 were missed). This is before any tuning in the form of adding or removing drivers that can improve results.

In addition, **Kanva** compares this with a naïve baseline, and provides an analysis of the top drivers, both at single prediction level, and aggregated for all the predictions.

# Unique Advantage

Existing solutions require extensive knowledge of data science and/or coding:



eXtreme Gradient Boosted Trees Regressor

K-Fold cross test      Weighting strategy

Train / Test Set      Discrimination Threshold

Cross Validation      Learning Curves

ROC AUC Curve      Hyperparameters

Precision Recall Curve      Confusion Matrix

Training Loss      AUC      Validation Loss

“A Mere 10% of Organizations Achieve Significant Financial Benefits with AI”

“Enterprises are rolling out more AI – to ‘middling results’”

Top five things hindering successful AI adoption for businesses are **limited AI skills, expertise or knowledge (34%)**”

## 70%-90% of companies’ AI initiatives fail

- Expensive development leads to **low or negative ROI**
- Domain **experts** are involved too late or **not involved** at all
- Most companies and teams miss out due to **AI skill gaps** and **data scientist shortages**

**Kanva** directly addresses all these causes to ensure successful and impactful AI adoption.



# Customer Journey



There will be an assessment by the customer after finishing each stage to decide whether to continue to the next one or not, there's no obligation to continue. Prices without MVA.

# Product Capability Matrix (Functional)

Capability	Production Grade	Beta 1 month	Development 3 months	Research 6 months (*)
Forecasting	◆			
Binary Classification	◆			
Multiple Classification		◆		
Regression	◆			
Model Interpretability (SHAP)		◆		
Panel Forecasts			◆	
Hierarchical Forecasts			◆	
Dimensionality Reduction				◆
Clustering				◆

# Product Capability Matrix (Technical)

Capability	Production Grade	Beta 1 month	Development 3 months	Research 6 months (*)
Tree-based models	◆			
Horizontal Scaling	◆			
Multi-Platform client (Win, Mac, Linux, Web)	◆			
Model Serving (Inference) via API			◆	
Batch Model Training			◆	
Cognite Data Fusion Support		◆		
Export Models as Jupyter Notebooks		◆		
Scheduled Data Loading			◆	
Scheduled Model Training			◆	