HOW TO CHOOSE THE RIGHT AI MODEL

A Decision Framework for Financial and Legal Services

1 If predicting financial trends and values

2 If classifying financial or legal documents
If verifying client identity and assessing risk (KYC)
If ensuring no conflicts of interest (KYC)

3 If analysing unstructured data

4 If optimising financial strategies or legal decisions

5 If analysing complex patterns in data

6 If processing legal or financial documents

7 If making decisions or predictions based on historical data

1

Predicting financial trends or values

Supervised Learning

Regression

Use Cases: forecasting market trends, predicting financial metrics

2

Classifying financial or legal documents
Verifying client identity & assessing risk (KYC)
Ensuring no conflicts of interest (Conflict checks)

Supervised Learning

Classification

Is your data linearly separable?

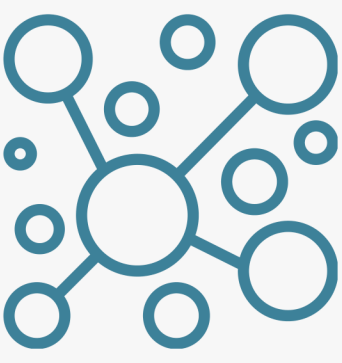
Yes - Logistic Regression

Use Cases: classifying credit risk, legal case outcome prediction, basic KYC checks, initial conflict check screening

No - Support Vector Machines (SVM)

Use Cases: complex financial product classification, legal document analysis, complex KYC involving multiple data sources, detailed conflict checks with extensive data

3



Analysing unstructured data

Unsupervised Learning

Do you require an analysis of customer behaviour or market segments?

Yes - Hierarchical Clustering

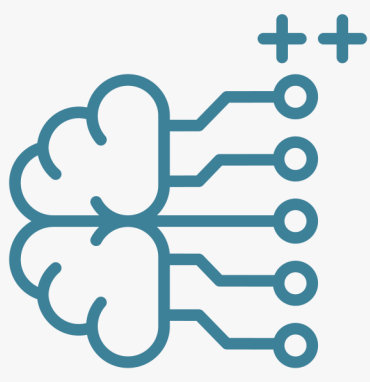
Use Cases: client segmentation in legal services, market analysis

No - K-means Clustering

Use Cases: client portfolio segmentation, risk profiling

4

Optimising financial strategies or legal decisions



Reinforcement Learning

Are you modelling decision-making processes?

Yes - Policy Gradients

Use Cases: optimising investment strategies, legal strategy development

No - Q-Learning

Use Cases: automated trading systems, legal case analysis simulations

5

Analysing complex patterns in data

Deep Learning

What type of data are you dealing with?

Transactional or operational data - Convolutional Networks (CNN)

Use Cases: fraud detection in financial transactions

Time-series financial data - Recurrent Neural Networks (RNN)

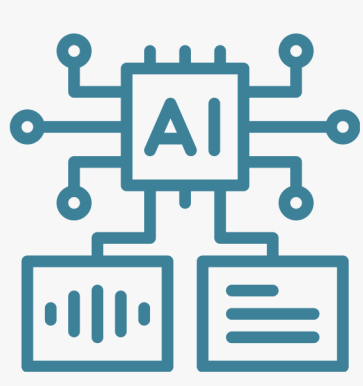
Use Cases: financial market prediction, cash flow analysis

Need to identify patterns or anomalies - Generative Adversarial Networks (GAN)

Use Cases: financial modelling, risk assessment

6

Processing legal or financial documents



Natural Language Processing (NLP)

What is your NLP task?

Document analysis & summarisation - Transformer Models

Use Cases: legal document summarisation, financial report analysis

Text classification or sentiment analysis - Long-Short Term Memory (LSTM)

Use Cases: sentiment analysis of legal opinions, financial news analysis

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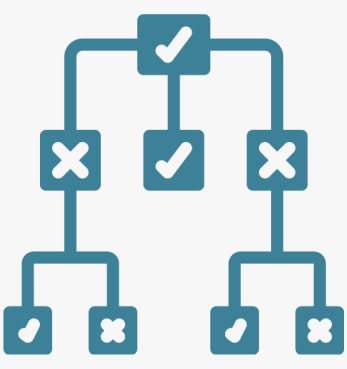

Decisions or predictions based on historical data

Decision Trees & Ensemble Methods

What kind of problem are you facing?

Need interpretable models for risk and compliance - Decision Trees

Use Cases: compliance risk assessment, legal precedent analysis

Require robust models for prediction or classification

For fraud detection or client retention - Random Forest

For predictive analytics in finance - Gradient Boosting Machines (GBM)