

Prévision et Allocation Tactique pour les Portefeuilles d'Actifs Crypto

Datachallenge – 2024



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Quel sera le prix du
Bitcoin demain?

Aujourd'hui
27 454.47€





Quel sera le prix du **Bitcoin** demain?

Demain

27 234.82€

↘ -0.80%

Contexte

Consignes



Indicateurs
Macro & Marché



Sentiments

Objectifs

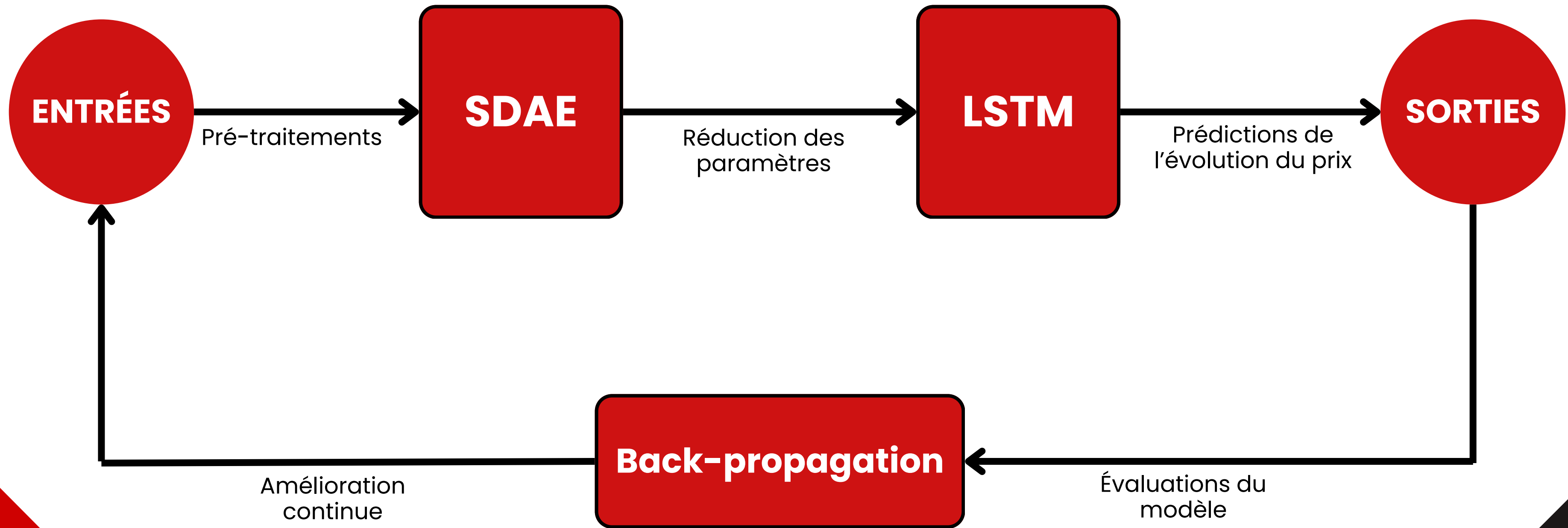


+ Performance

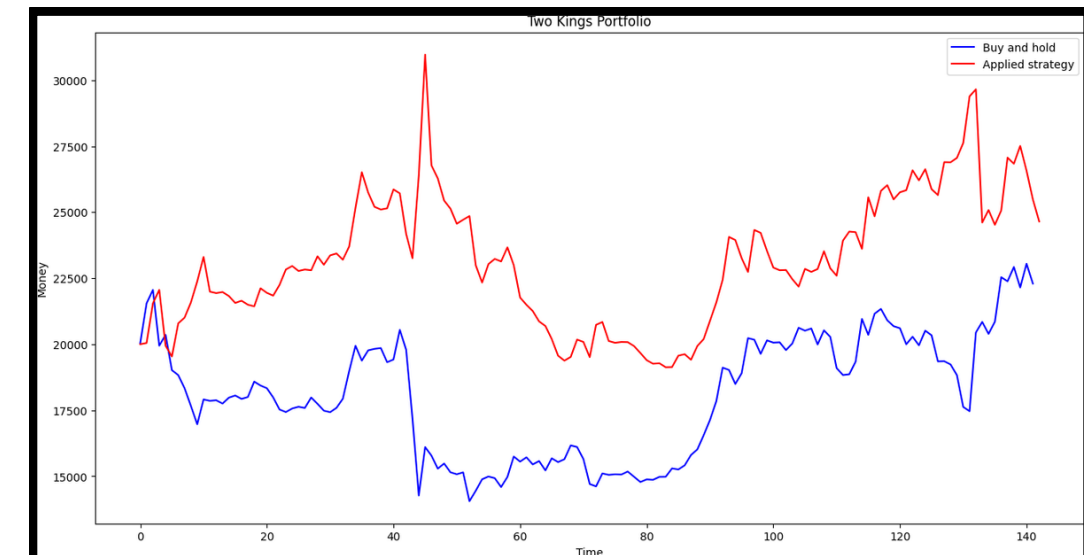
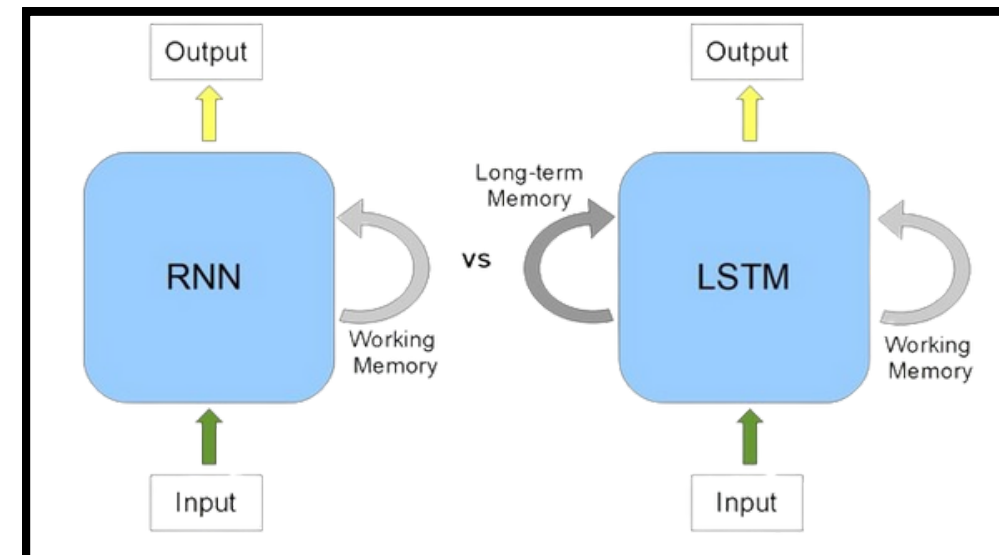
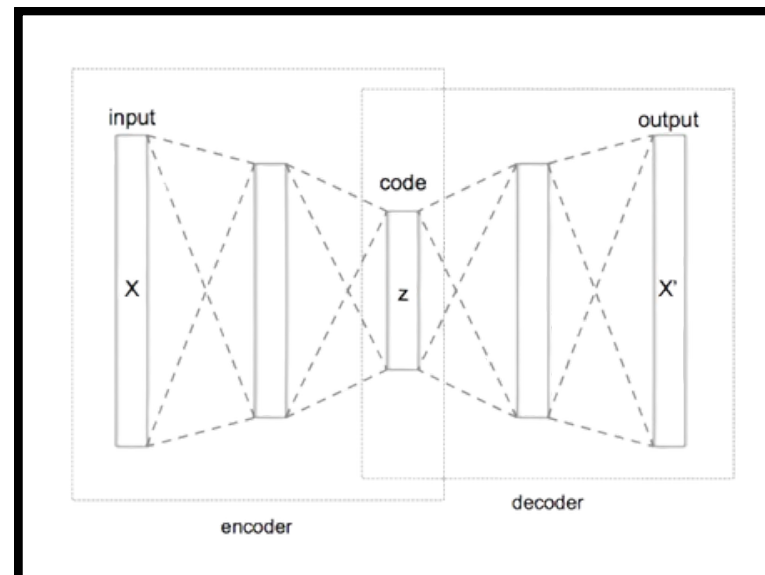
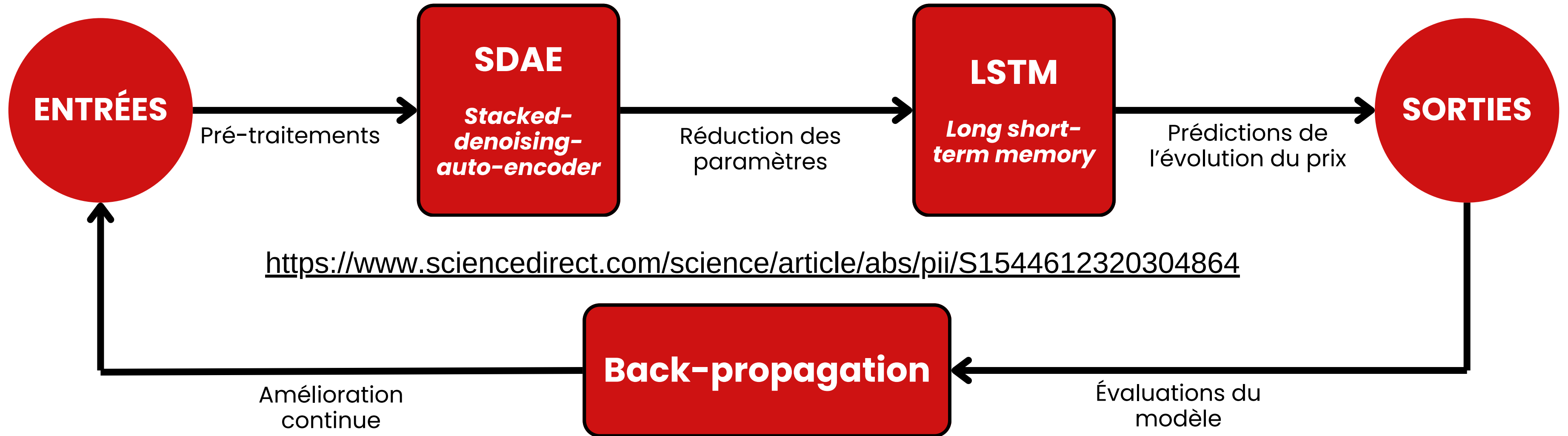


- Risques

Modèle pour J+1



Modèle pour J+1




```

### SDAE
input_layer = Input(shape=(len(include),))
encoded = Dense(64, activation='relu')(input_layer)
encoded = Dense(32, activation='relu')(encoded)
encoded = Dense(16, activation='relu')(encoded)

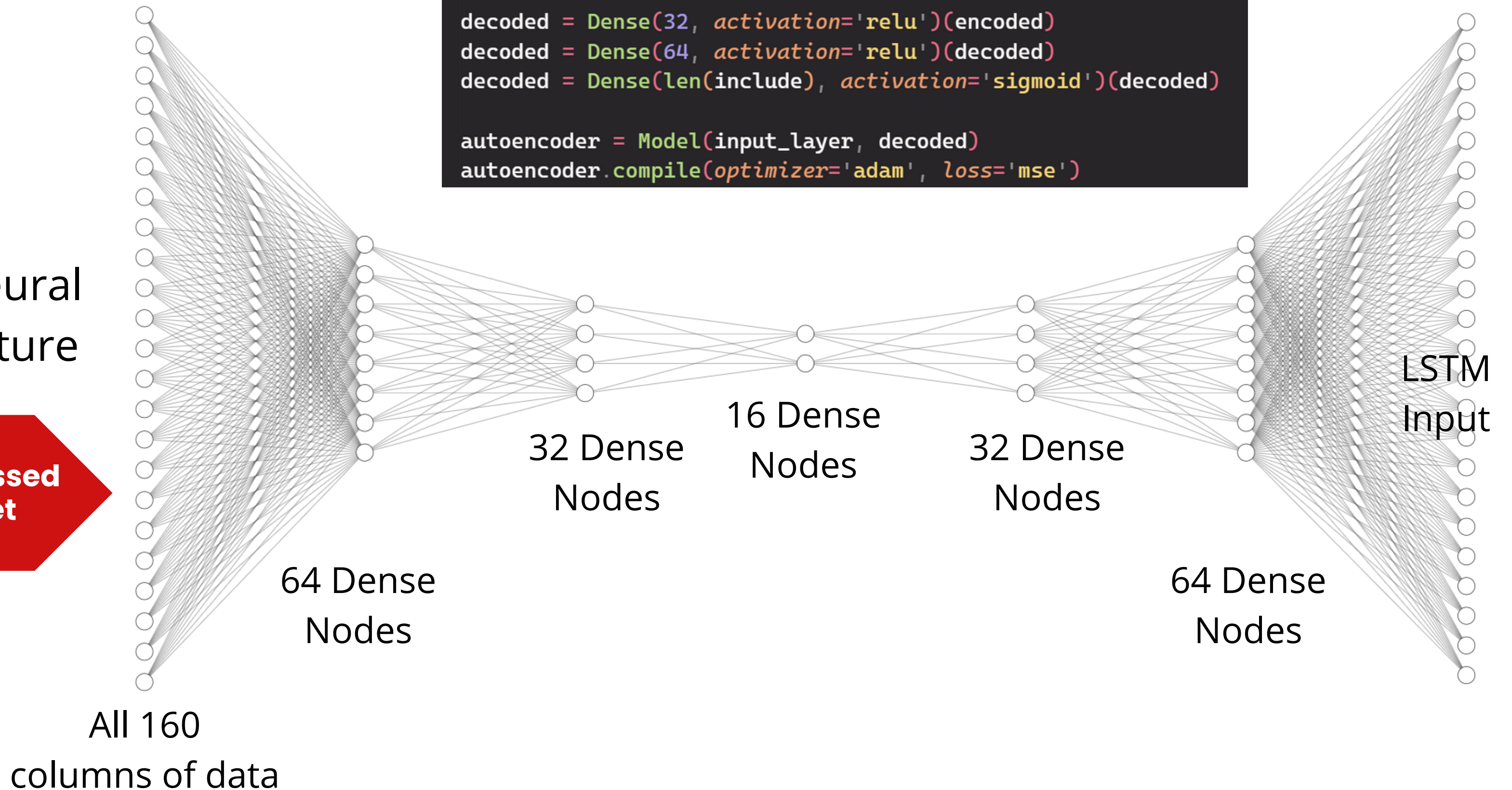
decoded = Dense(32, activation='relu')(encoded)
decoded = Dense(64, activation='relu')(decoded)
decoded = Dense(len(include), activation='sigmoid')(decoded)

autoencoder = Model(input_layer, decoded)
autoencoder.compile(optimizer='adam', loss='mse')

```

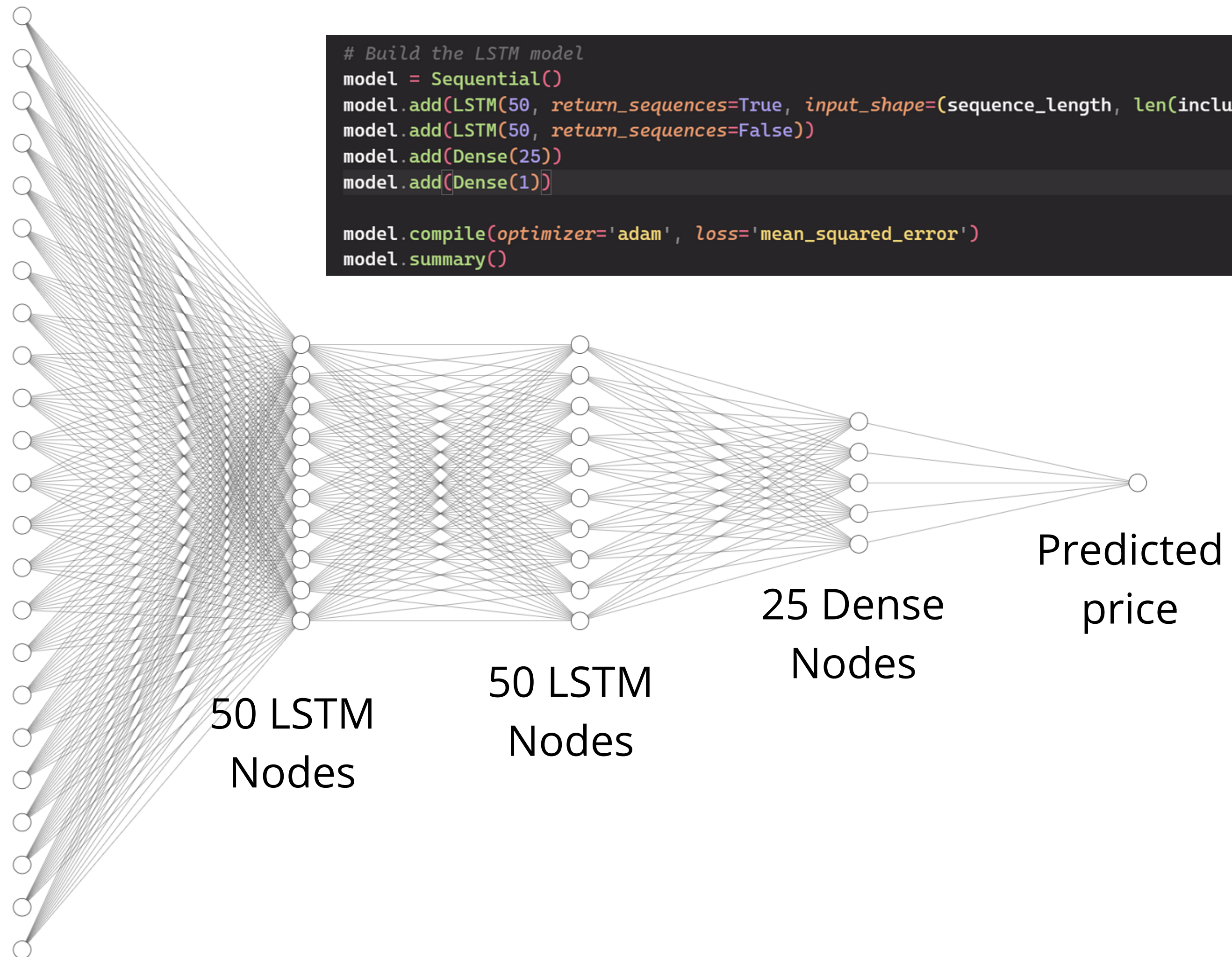
SDAE Neural Architecture

Preprocessed Dataset



LSTM Neural Architecture

**SDAE
Output**



```
# Build the LSTM model
model = Sequential()
model.add(LSTM(50, return_sequences=True, input_shape=(sequence_length, len(include))))
model.add(LSTM(50, return_sequences=False))
model.add(Dense(25))
model.add(Dense(1))

model.compile(optimizer='adam', loss='mean_squared_error')
model.summary()
```

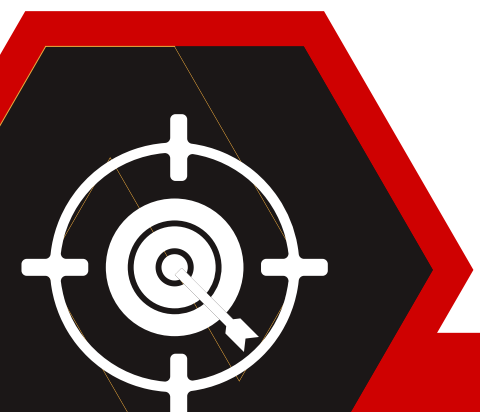
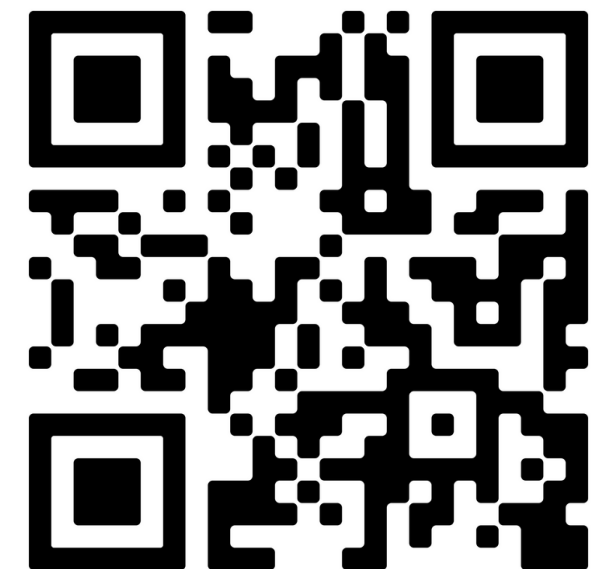

Performance du Modèle

	Indicator Name	Value
0	Mean Square Error	2243454.062
1	Root Mean Square Error	1497.816
2	Mean Absolute Error	1272.794
3	Root Mean Square Error (log)	0.047
4	Mean Absolute Error (log)	0.033
5	Mean Absolute Percentage Error	6.272
6	U-Theil1 Statistic	67.668
7	U-Theil2 Statistic	0.210
8	Diebold-Mariano Test	35.591
9	Rendement Absolue	0.350

Données pour le BTC
Evaluation du modèle

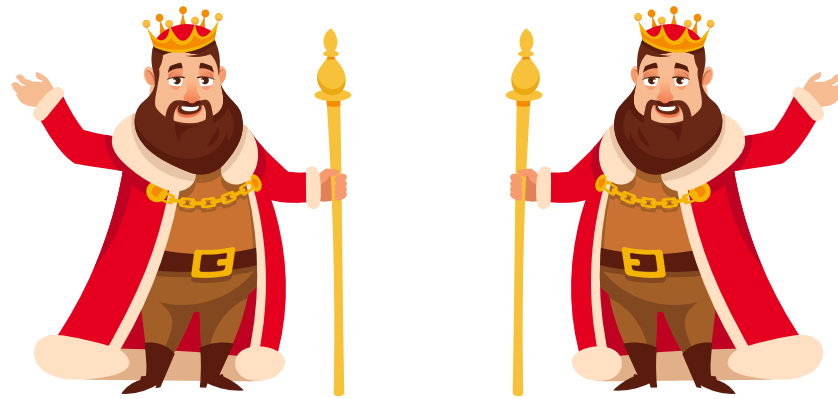


Accessible à l'adresse
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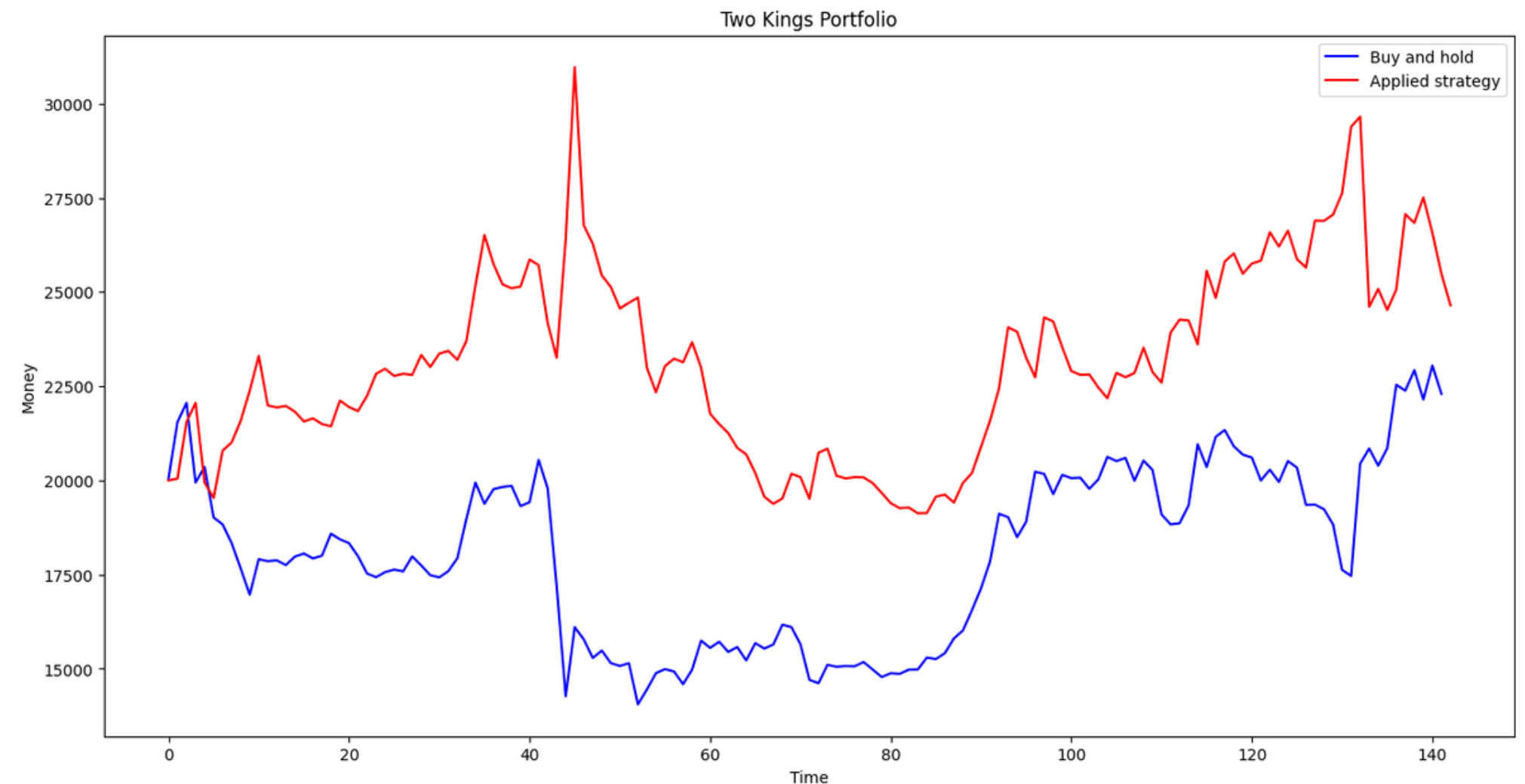
Performance du Portefeuille

Two Kings



Profil Investisseur
Performance et risque

	Buy & Hold	Prediction
Performance	+ 11.22%	+ 23.24 %
Ratio de Sharp	0.73	1.07



Bitcoin (BTC) & Ethereum (ETH)

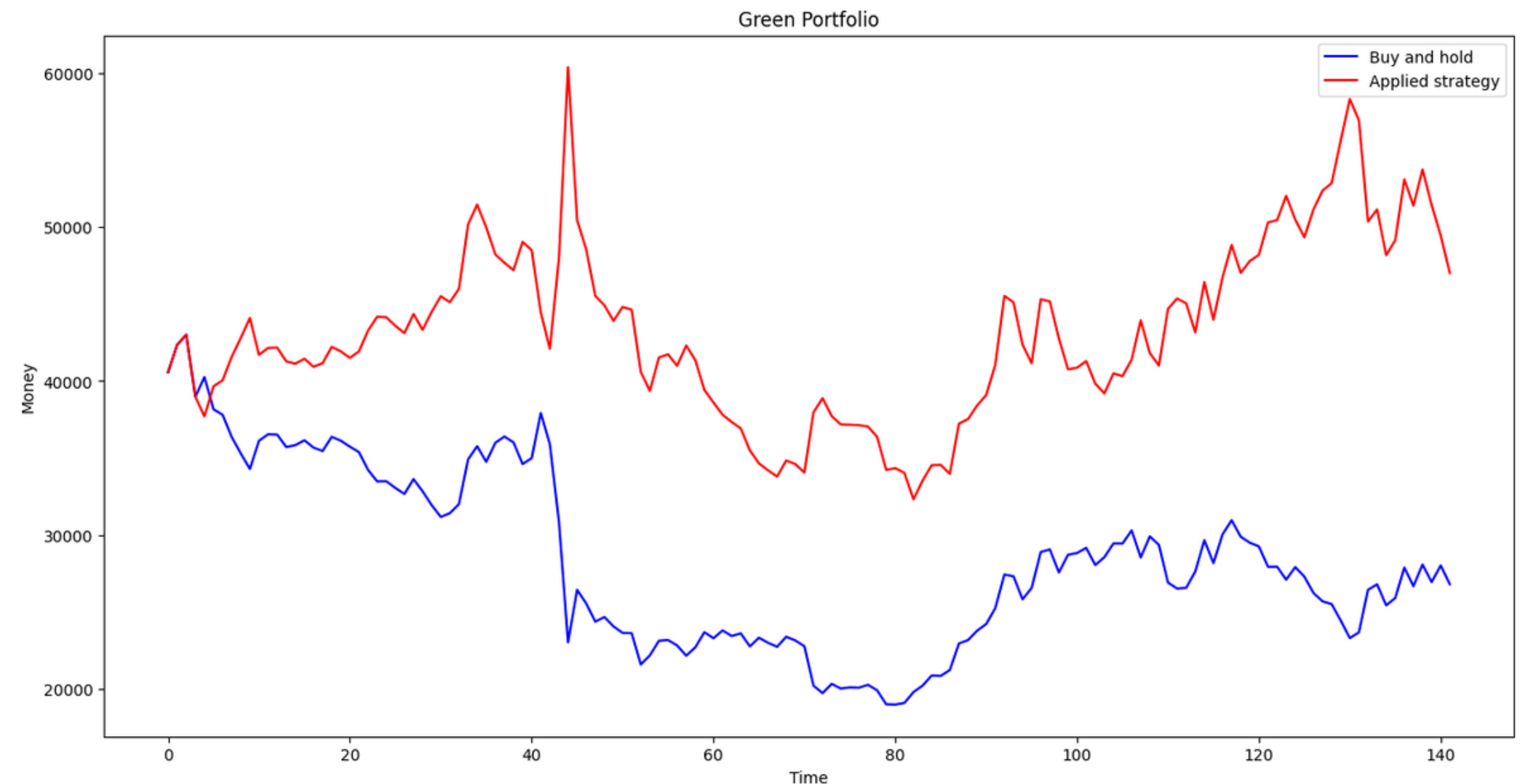
Performance du Portefeuille

Vert – Proof of Stake



Profil Investisseur
Performance et risque
(eco-friendly)

	Buy & Hold	Prediction
Performance	- 33.98 %	+ 15.89 %
Ratio de Sharp	- 0.75	0.85



Ethereum (ETH) - Cardano ADA (ADA)
Polka Dot (DOT) - Solana (SOL)

Perspectives d'évolution

Frais de Transactions

Impact des sentiments

Intégrer du Staking

Augmenter le dataset



Merci de votre attention ! Des questions ?

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