Duxchange

A Hackathon Project by Weizhi Du

Introducing Duxchange!

Features:

- Fetches historical stock data using Yahoo Finance API.
- Preprocesses data for training.
- Trains an LSTM model for prediction.
- Visualizes actual vs. predicted stock prices.

An exciting interdisciplinary project!

How do you predict the stock market?

Computer Science

+

Finance / Business

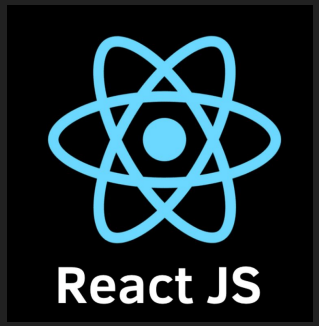
+

Statistics and Data Science

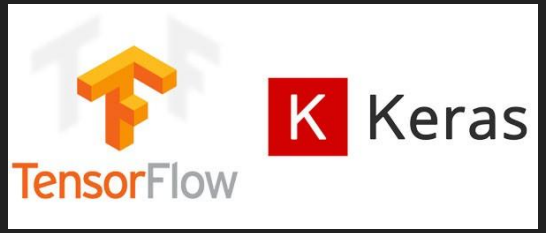
+

Education

Technical


React JS


python


TensorFlow
K
Keras


NumPy


pandas

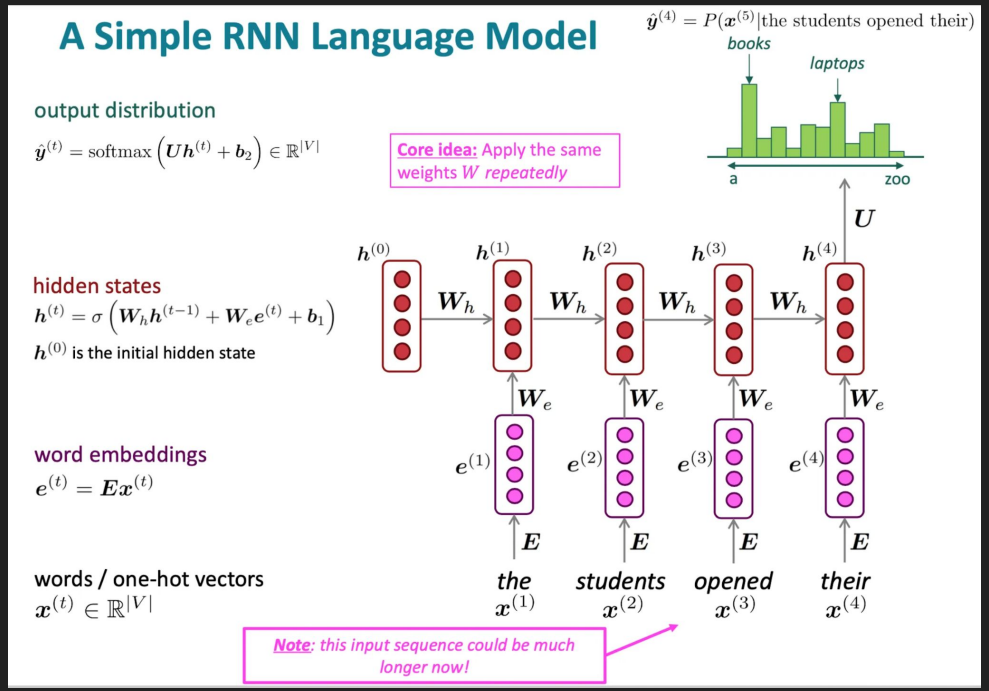

Flask


yahoo!
finance

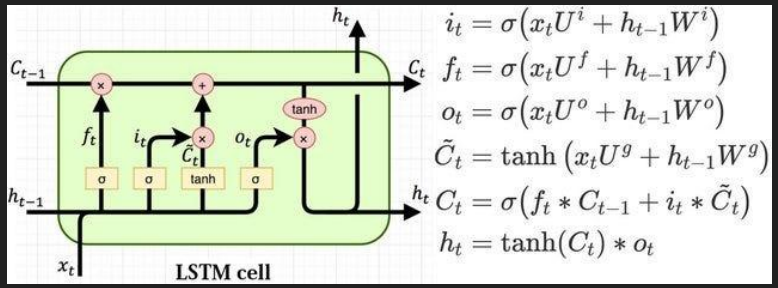

scikit
learn
contrib


matplotlib

RNN and LSTM Neural Networks Models



RNN illustration
Source: aiml.com



LSTM illustration
Source: colah.github.io

Business Needs!

- **Market Need:** harness deep learning for stock prediction
- **Doability and Potential:** entirely feasible, potential to be expanded
- **Target Users:** Individual investors, financial analysts, educators, students
- **Business Model:** open-source; built-in commercial applications

Thank you!

Duxchange by Weizhi

https://github.com/Weizhi-Du/duxchange