

# The Data

### Target:

- High Volatility
- High Volume

## **Input Data**

- Minute OHLCV Data for 16 ETFs since 2013 (Ticker)
- ~600,000 Financial News Articles since Dec. 2017 (Text)



### ome Loans Enter Uncertain Era Authoritation and the prices have shot up in their incomes could afford. Painkiller Gets Pass Gets Pass

Bangladesh Redstone Heirs Take On Bigger Role Grandchildren gain influence in direction of media empire, await CBS-Viacom fortune



# **Dual Model Problem** Statement

- Ticker Data
  - Hypothesis:
    - ▶ Morning Market behavior is indicative of intraday market behavior
- Text Data
  - Hypothesis:
    - Morning news is indicative of intra-day market behavior



### lome Loans Enter Uncertain Era Painkiller

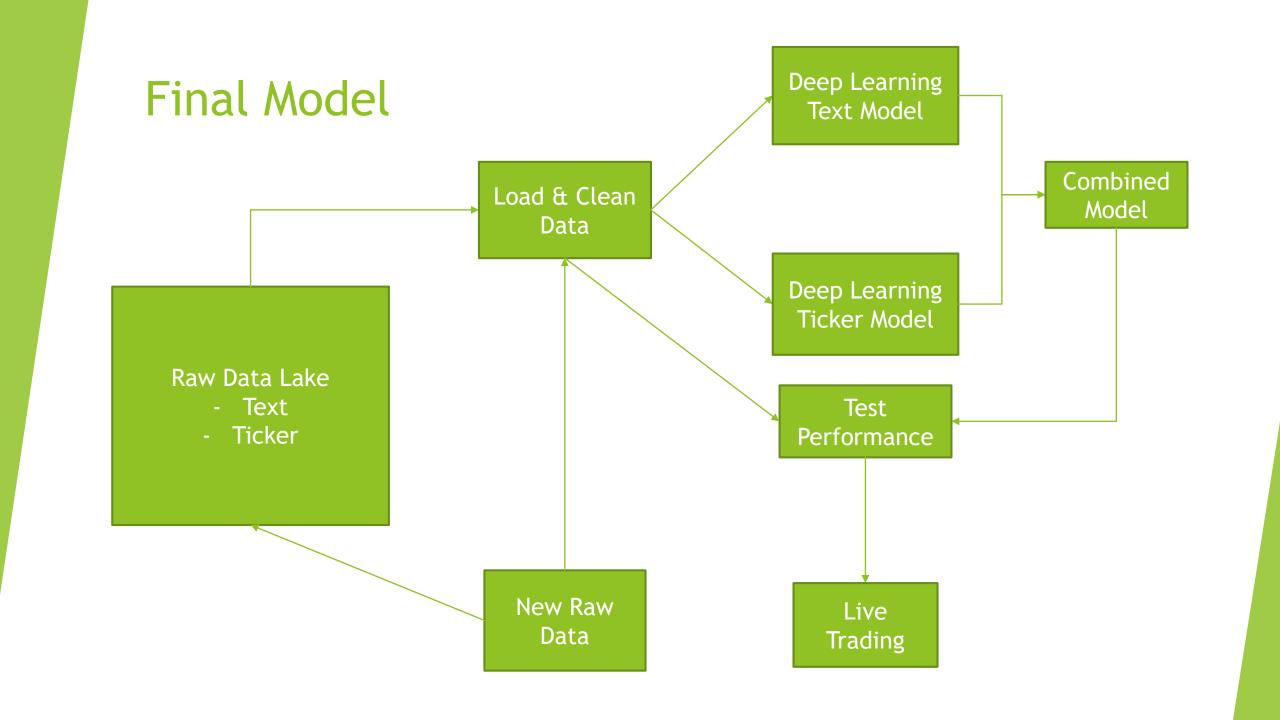
Bangladesh Redstone Heirs Take On Bigger Role

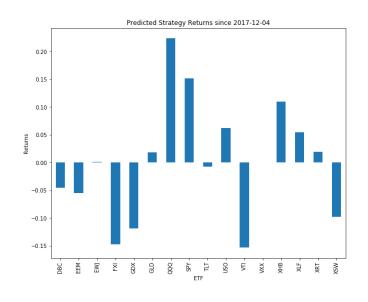
As the battle for control or

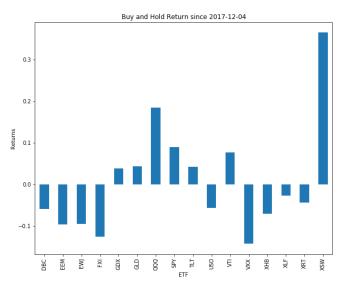


# Relative Strength Index **Strategy**

- **RSI** Measures
  - Oversold (>70)
  - Overbought (<30)
- Performs well under
  - High Volume
  - High Volatility
- Strategy
  - Buy at 30
  - (Short) Sell at 70
  - Liquidate at End-of-Trading-Day







## Model Performance

- Out-performed on 10 out of 16 ETFs
  - ▶ DBC, EEM, EWJ, QQQ, SPY, USO, VXX, XHB, XLF, XRT
- Results NOT statistically significant at 0.10 level
  - Daily and Weekly Returns

## Recommendations



## **Data**

Update ETF Universe

More News Sources

Alternative Text Data



## **Parameters**

Capital Allocation
Volume & Volatility Cut-off
Stop Loss & Take Profit

## Recommendations



# Strategy

Optimized Underlying System Fit Models to Intra-Day Data



## **Performance**

Risk Metrics
Sharpe Ratio
Max Draw-down