Embracing Public Sentiment: A New Dimension in Equity Portfolio Management

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Objectives

- Leverage public sentiment analysis to identify emerging trends and market shifts
- Detect early warnings about market changes and potential crises
- Augment technical analysis with granular sentiment analysis on each equity for a robust risk management strategy

Technology

- Python libraries like Beautiful Soup, Selenium and Scrapy to extract relevant information from websites
- Visualization libraries like Matplotlib and Plotly to create compelling visual representations
- Libraries like SpaCy and PyTorch for tokenization, feature extraction, model development and optimization

Current & Future developments

- Employ web scraping tools to extract relevant data from financial news websites, and social media platforms
- Utilize cutting-edge NLP techniques such as recurrent neural networks, transformers and hyperparameter tuning
- Analyze and process textual data from various sources to derive sentiment scores
- Employ machine learning and deep learning techniques to classify and score sentiment data
- Employ advanced visualization techniques, such as heatmaps, network graphs, and sentiment score plots
- Leverage cloud-based solutions and distributed computing technologies for scalability
- Containerization technologies like Docker to package and deploy the project's components
- Ensure the project remains efficient and reliable as data volume and complexity increase
- Adapt to changes in market conditions, data sources, and investment strategies
- Incorporate feedback and new insights to continuously enhance the project's effectiveness