Internship Opportunity: Machine Learning/Deep Learning Intern for AI Agent Lab (Live Data Stream Focus)

Job Description:

We are looking for an enthusiastic intern with experience in **Machine Learning (ML), Deep Learning, and Neural Networks** to join our **AI Agent Lab** project. The primary focus will be on creating **live data stream processing notebooks** specifically for **market data** in conjunction with machine learning notebooks.

The AI Agent Lab already provides a seamless interface for managing and querying data, visualizing results, and real-time coding using GPT-3.5 models. We aim to expand the project's capabilities by adding ready-to-use **live data stream processing notebooks** integrated with machine learning models. These will allow users to experiment with **market data** and **ML algorithms** in real-time, providing a streamlined environment for data scientists.

Your Role:

- Develop **multiple sets of notebooks**, with each set consisting of:
    1. A **data processing notebook** focused on handling **live data streams** (e.g., stock prices, financial data, cryptocurrency).
    2. A corresponding **machine learning notebook** that applies various ML models to analyze the processed data, for tasks such as:
        - Predicting market trends (regression)
        - Detecting patterns (clustering, classification)
        - Time-series analysis for financial forecasting.
    3. Ensure the notebooks are optimized for use with GPT-3.5 models, providing a simple and clear workow for users to follow.
    4. Collaborate with the team to create and integrate machine learning templates for quick experimentation with live market data.
    5. Explore the potential integration of other live data sources (Twitter API, nancial news, etc.) for additional context and insights

Each set of notebooks should focus on a different type of data stream or machine learning technique, providing users with ready-to-use templates for various data science tasks.

Responsibilities:

- Create, test, and maintain **multiple sets of notebooks**:
    1. A **data stream processing notebook** for each type of **live market data source**, utilizing the **TA-Lib Python package** for technical analysis.
    2. A **machine learning notebook** for each set, implementing models that analyze the processed data.
    3. Ensure the notebooks are user-friendly, providing templates for those new to data science and machine learning.

Preferred Skills:

- **Experience** with ML and Deep Learning models, particularly in real-time applications like **market data**.

- Proficiency in **Python**, especially libraries like **TensorFlow, PyTorch, Scikit-learn, Pandas, NumPy**, and **TA-Lib**.
- Familiarity with **data streaming** technologies and APIs (e.g., **WebSockets, financial APIs**).
- Strong knowledge of **time-series analysis**, **regression models**, and **NLP** for financial data.
- Understanding of the financial markets and their data is a **plus**.

Internship Details:

- **Position**: Remote Intern (AI Agent Lab - Market Data)
- **Stipend**: ... per month
- **Start Date**: October 1, 2024
- **Duration**: 3 months, with potential for extension based on performance
- **Work Mode**: Remote

How to Apply:

Submit your application with examples of past projects, particularly those related to **real-time data processing** or **market data analysis**. Please include your experience with **machine learning** and **deep learning models**, especially those focused on financial or live-streaming data, and your experience using **TA-Lib** for technical analysis.