INTERNSHIP POSITIONS @ HODLMAN SAX

Founded in 2022, Hodlman Sax is a small quantitative research firm incorporated in the UAE. We specialize in arbitrage and market inefficiencies for the crypto markets. We run multiple strategies on derivatives, and our yearly trading volume exceeds 1B USD. The core team is French, and we all graduated from either Ecole Polytechnique or Imperial College London. The team is working remotely from Dubai and Tokyo. Our backgrounds include deep learning/machine learning, data science, and derivatives trading.

THE ROLE

You will be part of our core team working on the design of new trading signals.

We offer different internship subjects (3~6 months):

- Analyze the impact of tweets from some users on the crypto prices (realtime feed, NLP, Ref [3]).
- Implement techniques described in Ref [1,2]: recurrent neural networks on Fractionally Differentiated time series, dollar and volume bars…
- Research on Interpretable Machine Learning for models with hundreds of input variables. Ref [4].

SKILLS

- You have or expect a degree in Mathematics / Physics / CS / Engineering.
- You are proficient in Python, Pandas, Scikit Learn and Matplotlib.
- You have experience in handling Time Series.
- You are creative and have the ability to think outside the box.
- You have experience with Keras/Pytorch and Cloud providers (Bonus).

REFERENCES

1. Advances of Machine Learning by Marcos Prado.
2. An Empirical Evaluation of Generic Convolutional and Recurrent Networks for Sequence Modeling (Arxiv:803.01271).
3. Deep Learning for Event-Driven Stock Prediction (2015).
4. SHAP (SHapley Additive exPlanations) is a game theoretic approach.

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