

Thesis
B.Sc.Thesis
M.Sc.

IDP

Predicting Future Transactions of Blockchain Wallets

Motivation

Blockchain data is very rich and accessible. Time-series data of past transactions of wallets allow to profile behaviour patterns of the owner behind the wallet on the blockchain network, e.g., Ethereum. Based on past transactions of wallets (on-chain data) as well as further on- and off-chain data that we already connect to those transactions, we want to a) predict what kind of transactions a wallet is likely to do in the future (e.g. buying certain NFT categories) and b) build a recommendation engine for wallet owners to inform them about interesting projects that might fit their interests based on past behaviour. To note, this Thesis would be done in a collaboration with Blockbrain [3].

Your Profile

- Interest in Blockchain data on Ethereum
- Experience in Python and SQL
- Pragmatic, analytical mind, data-driven
- Plus: Experience in Data Science / ML and web3

Your Tasks

- Understand our available data (all historical transactions of any given wallet, labeled with categories and enriched by a lot of meta data on the bought and sold assets)
- Research and prototype about wallet profiling as basis for behaviour prediction
- Build a goldset of data, train ML models, measure KPIs like accuracy, precision, recall & F1-score and iterate for optimization of those KPIs
- Recommend further data sources that could be useful to improve the KPIs

References

- [1] - <https://arxiv.org/pdf/2008.09667.pdf>
[2] - <https://ieeexplore.ieee.org/document/8840919>
[3] - <https://www.theblockbrain.io/>

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