



BA/SA:

Understanding Decentralized Finance Through Data

In recent years, most parts of the financial system have been rebuilt in a decentralized manner using the blockchain. Decentralized finance (DeFi) is the umbrella term for these financial applications running on the blockchain (mainly Ethereum) and their usage has been growing dramatically.

Some of the most notable DeFi applications include:

- Decentralized exchanges (Uniswap, Sushiswap, Curve, Balancer,...): Cryptocurrency exchanges that allow transactions to take place on the blockchain without an intermediary. Most decentralized exchanges replace traditional order books by an automated market maker mechanism.
- Lending platforms (Maker, Compound, Aave,...): Rely on smart contracts to replace financial intermediaries such as banks that traditionally manage lending.
- Stablecoins (DAI, AMPL): Designed to keep their peg (achieve price stability) by using only software and rules. Most stablecoins are pegged to a reserve asset such as the US dollar.

The public nature of the blockchain provides great opportunities for research. We want to collect DeFi data to analyze and better understand both the platforms and the behaviours of their users.

Requirements: This project will involve using a go-ethereum client to extract on-chain data, thus a strong programming background is required. An interest and experience with blockchain is a plus. We

will have weekly meetings to discuss open questions and determine the next steps.



Interested? Please contact us for more details!

Contact

- Lioba Heimbach: hlioba@ethz.ch, ETZ G95
- Ye Wang: wangye@ethz.ch, ETZ G63