





Prof. R. Wattenhofer

Performing Better Trading Strategies in DeFi with the Help of Machine Learning

The emergence of blockchain technologies as central components of financial frameworks has amplified the extraction of market inefficiencies, such as arbitrage, through MEV from DeFi smart contracts. Exploiting these opportunities often requires fee payment to miners and validators, colloquially termed as bribes. The recent development of centralized MEV relayers has led to these payments shifting from the public transaction pool to private channels, with the objective of mitigating information leakage and curtailing execution risk. This transition instigates highly competitive first-price auctions for MEV. However, effective bidding strategies for these auctions remain unclear.

In this project, we would like to investigate bidding strategies for the current best performing actors. We also want to analyze how strategies change over time and what factors contribute to the changes. Finally, we want to propose a new bidding strategy that optimizes for expected profit, based on our previous findings.

Requirements: An interest in decentralized finance. Machine learning experience is required. Some fa-

miliarity with Ethereum or other peer-to-peer networks would be beneficial. We will have weekly meetings to address questions, discuss progress, and think about future ideas.

Interested? Please contact us for more details!

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