

Title: Impact and User Perception of Sandwich Attacks in the DeFi Ecosystem

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Conference: CHI '22: Proceedings of the 2022 CHI Conference on Human Factors in Computing Systems April 2022 Article No.: 591 Pages 1 – 15

DOI: <https://doi.org/10.1145/3491102.3517585>

Abstract: Decentralized finance (DeFi) enables crypto-asset holders to conduct complex financial transactions, while maintaining control over their assets in the blockchain ecosystem. However, the transparency of blockchain networks and the open mechanism of DeFi applications also cause new security issues. In this paper, we focus on sandwich attacks, where attackers take advantage of the transaction confirmation delay and cause financial losses for victims. We evaluate the impact and investigate users' perceptions of sandwich attacks through a mix-method study. We find that due to users' lack of technical background and insufficient notifications from the markets, many users were not aware of the existence and the impact of sandwich attacks. They also had a limited understanding of how to resolve the security issue. Interestingly, users showed high tolerance for the impact of sandwich attacks on individuals and the ecosystem, despite potential financial losses. We discuss general implications for users, DeFi applications, and the community.