

Thesis  
B.Sc.Thesis  
M.Sc.IDP,  
Guided  
Research

# Leveraging Self-Custody Models for Promoting Financial Inclusion

## Motivation

In the last decade, technology has been relevant in including people in financial systems worldwide [1]. However, there is still a lot to be done, as more than 1.4 billion people still lack access to essential financial services. The promise of financial inclusion through cryptocurrency is particularly powerful for vulnerable populations who cannot comply with traditional document requirements for opening a bank account or cannot afford the cost of using traditional financial services. Self-custody models, which allow individuals to manage their own digital assets without reliance on centralized institutions, maybe a potentially relevant enabler in this field [3]. Recent advancements, such as account abstraction [2] within the cryptocurrency space, open new possibilities for designing user-friendly and secure self-custody models.

## Your Task

- Gain a deep understanding of the topics surrounding cryptocurrency, financial inclusion, and self-custody models in the context of decentralized finance (DeFi).
- Identify companies and projects that are actively working on self-custody solutions. Identify parameters to compare them. Analyze their progress and potential.
- Assess the technical, financial and social risks and barriers to implementing these models at scale, especially in regions with limited infrastructure or technical literacy.
- If necessary, propose new self-custody models that could work for financially excluded populations.

## Requirements

- Experience/strong interest in cryptocurrency and decentralized technologies.
- Critical thinking to compare and analyze various solutions
- Modify and assess feasibility of such studies

## Sources

- FINDEX
- Account Abstraction EIP-4337
- zkLogin arxiv

## Contact

Filip Rezabek      frezabek@net.in.tum.de  
Suzana Moreno    suzana.moreno@wfp.org

