

TLDR:

I am looking for suggestions of Ethereum related open research ideas, topics, or project opportunities that could fit into a Computer Science Master's Thesis, oriented towards Distributed Systems.

## Context

I am about to finish my Master's degree in Computer Science. Next February marks the beginning of the final thesis semester and, at this point, I am in an active search for potential thesis topics that could be sufficiently interesting and fulfilling and that could serve a meaningful and, if possible, practical purpose.

## Specialization and Interests

(please note that the Master's specialization level is not too narrow – it may become narrower with the thesis scope)

I am specializing in Distributed Systems

, and my focus is highly-available and preferably decentralized systems. As part of my academic path, I have been studying about the theoretical roots of Distributed Systems

, the practicality of Cloud Computing

, Applied Cryptography

, Parallel Computing

, Enterprise Systems Integration

... Apart from the usual (Design and Analysis of) Algorithms, Software Engineering etc. of every Computer Science degree.

I have also been working at the same time, and my recent software engineering jobs focused on the realms of electronic voting, real-time financial fraud and risk assessment, and security engineering in an R&D environment around secure & privacy preserving MPC.

Recently, I have been orienting my independent study towards a personal understanding of the permissionless consensus problem, its inner workings and different approaches, potentially leaning towards mobile and edge computing or, generally, resource constrained networks.

Game theory applied to distributed systems is also a personal taste, as well as Chaos, Graph and Queuing theories.

## Goal

I am trying to find, in the Ethereum ecosystem, unanswered research questions, ideas, or projects to dive into, in my Master's thesis work.

If you have any interesting suggestions, references, collaboration opportunities, etc., please let me know.

Thank you for your time.