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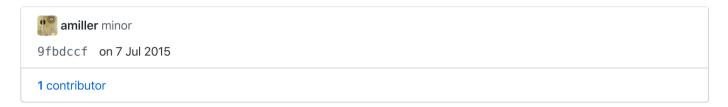
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Ethereum Analysis: Gas Economics and Proof of Work

Overview

From January through March of 2015, Least Authority, conducted an analysis of Ethereum's Gas Economics and Proof of Work, in a consulting capacity with DEVolution, GmbH. The two analysis topics are independent and presented here as separate documents comprising this report:

- GasEcon.md: An analysis of the Ethereum Virtual Machine (EVM), its use of "gas" to compensate miners for the computational costs of verification, and the resulting economic effects. Includes an examination of contract composition and defensive programming strategies.
- PoW.md: An analysis of "Ethash", the Proof-Of-Work function which makes it difficult
 and expensive to attack Ethereum's consensus algorithm. We examine its goals
 ("GPU-friendly, ASIC-resistant"), compare it to existing techniques in the passwordhashing literature, and discuss how it will need to evolve as conditions change.

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