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GAT-RL to Optimize Network Efficiency in Ethereum

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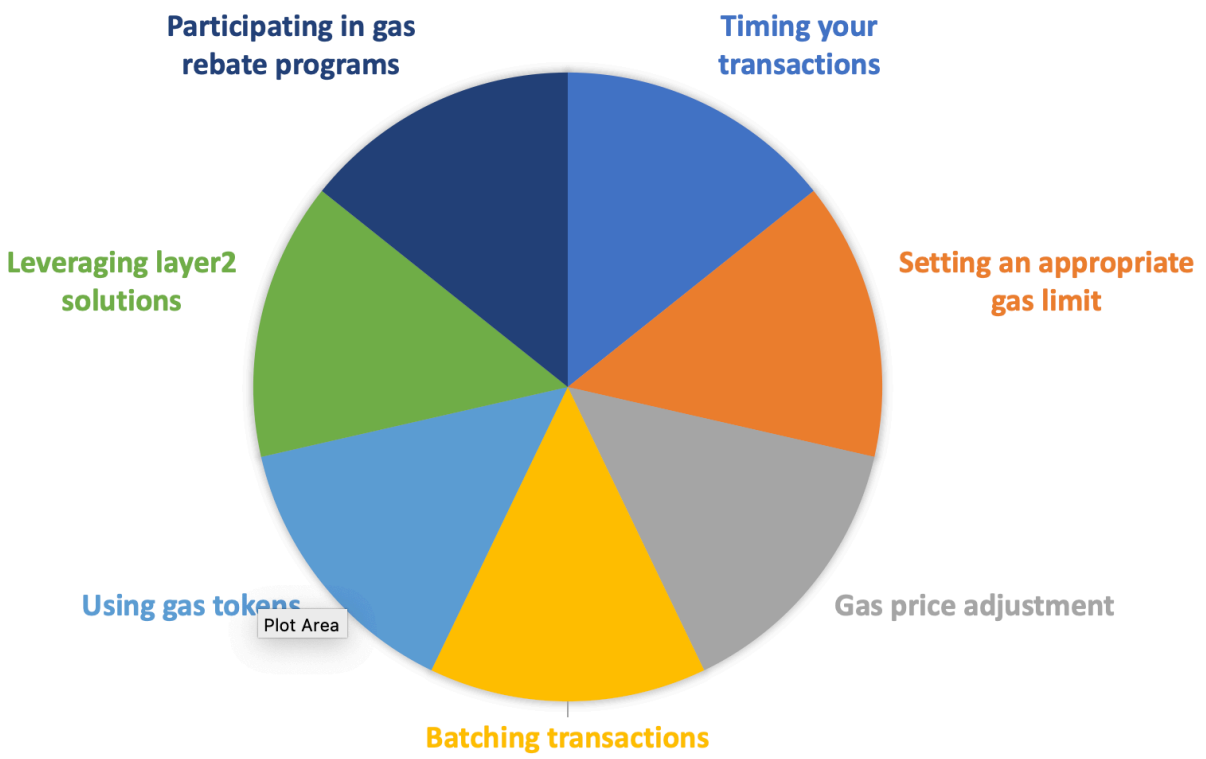
Challenge: Ethereum Network can sometimes become congested, leading to challenges in optimizing network efficiency, particularly in the context of gas cost management.

Traditionally strategies for minimizing gas costs are



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- Traditional methods often rely on heuristics or fixed rules, which may not adapt well to changing network conditions.
- This can result in suboptimal throughput and resource allocation.

- Information propagation via GAT facilitates the learning of meaningful representations that capture the dependencies and patterns in the blockchain network.
- RL agent can learn to adjust gas limits dynamically to maximize throughput while minimizing processing time and congestion.

GAT-RL and Throughput Maximization

$$F = \sum (TransactionPriority \cdot \frac{GasCost}{TransactionComplexity})$$