



BA/SA:

## Helping Bitcoin keep up

Bitcoin is a global network and it is growing quickly. It is built on top of an unstructured overlay network akin to Peer-to-Peer systems like BitTorrent. Bitcoin's decentralized nature is both one of its main advantages as well as a major problem.

Being decentralized allows it to achieve unprecedented reliability and independence from controlling authorities. At the same time its decentralized nature makes information dissemination in the network of paramount importance. Similar to BitTorrent the same data item may bounce several times between continents. While the locality of data transfers has been extensively studied for BitTorrent, this is not the case for Bitcoin. Until now!



The goal of this thesis is to create a network of support nodes distributed all over the world that will serve as a backbone to the Bitcoin network. Clients that join the network will be redirected to a set of nodes of the content distribution network that is geographically close to their own position. In this way we hope to both offer a quicker dissemination of information in the network, as well as increasing the locality of data exchanges, making Bitcoin as a whole less wasteful.

**Requirements:** Good Python programming skills. Some knowledge about Bitcoin and networking is advantageous.

**Interested? Please contact us for more details!**

### Contacts

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