Finding sybils using GNNs

Social networks refer to graphs where each node represent a person and the edges represent a connection between two people. The classic example of this is Facebook, where each profile is a node, and an edge is formed between two nodes if they are friends.

However, some bad actors might create fake profiles on Facebook, and similarly any social network can contain fake nodes called sybil nodes.

This project seeks to evaluate whether machine learning and specifically graph neural networks, GNNs, can be used to detect sybils in social networks using algorithms such as SybilRank as a benchmark. The importance here is whether the GNNs can beat the accuracy of other methods whilst requiring a similar amount of compute.

Requirements:
Prior experience and a strong interest in machine learning is recommended. Creativity and programming skills are advantageous.

Interested? Please contact us for more details!

Contact
- Andreas Plesner: aplesner@ethz.ch, ETZ G95