Exploring the Transit-oriented-Development (TOD) performance in NYC: Combining node-place-design Model and Network Analysis

# Datasets

## Node-Place-Design Model

## Node

* subway station location (NYC open data portal)
* bus and other public transport location (NYC open data portal)

## Place

* NYC Facilities Dataset (NYC open data portal)
* POI (OSM or Google)
* Census Data (NYC open data portal)

## ***Design*** —— how well a station was designed for Orienting people

* I am still wondering about whether I need to add this dimension or not since there are only two paper implement this 'Design' dimension (including my model paper)
* If I want to implement this dimension, I will use the infrastructure database on NYC open data portal

## Network Analysis

* Turnstile Dataset on MTA official website

# Tools and software

* QGIS for geo-processing
* Python or R for spatial analysis and machine learning process

# Initial statement of ethics

* It does not require an ethics application because all the datasets are from an open data source.

# Challenges and actions -

* I have not tried network analysis on any software before.
* This analysis requires calculating each station by a specific scale. I have not done it on QGIS before.