**Rent cost analysis for Singapore**

**Ma Xin**

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1. Background introduction

In Singapore, the graduate ceremony usually would be held during end of July and till beginning of October. Meanwhile, most of fresh graduates would start their career life. Although the national territorial area of Singapore is just 721.5 square kilometers, which is even less than one ten thousandth of my hometown, China, the rent cost for different areas among Singapore are totally different. For the newbies just come from universities, the first issue they need to settle is to choose a cost-effective living place.

As we all know, Singapore overall urbanization is on the top of world. The main purpose of this analysis is to check whether the rent cost is main resulted from surrounding venues and facilities or just from the district function assigned by the government.

If all districts have good supporting facilities but with a great price different, then we can conclude the main cause for high rent price variation is due to advanced urban planning of Singapore which assigned different district special responsibility and functions. And it would be a good choice for newbies to choose live slightly far away from financial center. If there is big gap on supporting venues as well, by using machine learning with existing data, this analysis would give several recommend living place choices.

1. Data description

In order to solve the problem, please refer to the needed data description as below

1. According to geographical location distribution, Singapore is divided into 28 main districts [1].
2. As each district may include multiple general locations, need to get the general location list for each districts [2].
3. Based on Foursquare.com API to collect the most common venues for given districts of Singapore.
4. Median rent cost for each district of Q2 2019 in Singapore [3]
5. Reference

[1] <https://www.squarefoot.com.sg/trends-and-analysis/non-residential>

[2] <https://en.wikipedia.org/wiki/Postal_codes_in_Singapore>

[3] <https://www.squarefoot.com.sg/market-watch/median-rents>