

Building Entertainment Places for Workers in CA

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◆ Background

According to Oxford research[1], happy workers are 13% more productive, and entertainment places provide worker happiness. Yet, it is hard to measure the happiness degree of each worker, and building entertainment places are costly. Thanks to the development of data science, however, we can approximate their happiness degree by estimating how many entertainment places are surrounded, and we can save our budgets when we only build entertainment places in some important areas. If workers are surrounded by sufficient entertainment places, they will become happier, and therefore their productivity will be enhanced. On the other hand, if they have no source of entertainment, they would become unhappy.

◆ Data & Methodology

In this project, I will try to figure out which places in California may need extra entertainment places to increase productivity. To do this, there are several steps:

1. Search information of top 100 companies in California. The information can be **collected** from [2].
2. Search their geographical locations using Geopy
3. Search their nearby entertainment places using **Foursquare API**
4. Model the happiness degree using Gaussian Mixture Model
5. Evaluate the happiness degree for each company based on the density estimation

◆ Reference

[1] <https://www.ox.ac.uk/news/2019-10-24-happy-workers-are-13-more-productive>

[2] <https://www.zippia.com/advice/biggest-companies-in-california/>