

Applied Data Science Capstone

A comparison of the arcade scenes of Japan and California

A report by:

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Introduction

With the advent and perpetuation of easily attainable home video consoles, arcades have been perceived to be on the decline for some time now, even in tech-centric places like the Silicon Valley area of California. Gamers no longer have to go an arcade in order to feed a machine with quarters just to challenge their friends to a few rounds of Mortal Kombat, as modern home gaming systems allow for and encourage online play. In my own small California town, there are quite literally no arcades left, and only one is present a city over.

Japan is currently facing a similar decline in arcades, however, it is seemingly much slower than California's decline, possibly because it was bigger to begin with. Throughout this introduction, you have seen me use words like "seemingly" and "possibly" quite a bit. The purpose of this project is to definitively compare the sizes of Japan and California's arcade scenes, and to further establish where exactly the existing arcades are.

Why California and Japan?

As a California resident, I have seen firsthand the decline of arcades in my area. My town used to have two when I was a kid, and now that number has dwindled to zero. Really, I chose California because I live here, and so the curiosity and the data has a bit more of a personal touch to me. My perception of Japan's arcade scene, in contrast, was simply that it was much larger. Simply put, I want to see if my perceptions are true or not. I am also curious to see where exactly the arcades are in both Japan and California. Are they only in big cities? Is there some kind of rural arcade scene? Is it an even spread?

Business Problem/Target Audience

As stated before, the objective of this project is to compare Japan's and California's arcade scenes, finding out where they are, how they're distributed, and how much bigger or smaller they are in comparison to one another. Maybe you want to open an arcade somewhere and don't know a good place to do it. Maybe you want to open an arcade in an area that doesn't yet have one. Maybe you want to visit one of these two places and want to visit an arcade while you're there. Whatever the case, this project is largely meant to establish a map of arcades in California, as well as a map of arcades in Japan. The audience for this project is for those like me who are simply curious about the current state of arcades in the two places, for those who might be looking to open an arcade, as well as for those who are doing a bit of tourism and want to know where to go for an arcade experience.

Data

The data I will be using to answer the aforementioned questions is as follows:

- California location data, including zip codes, cities, and latitude/longitude data retrieved from: <https://public.opendatasoft.com/explore/dataset/us-zip-code-latitude-and-longitude/table/?refine.state=CA>
- Japan location data, including cities and longitude/latitude data retrieved from: <https://simplemaps.com/data/jp-cities>
- Venue data from the Foursquare API, specifically that of arcades, which is included in the list of categories Foursquare keeps track of.

All location data will be retrieved in the CSV format and used in conjunction with Foursquare's API as well as geopy.geocoder and Folium. Overall, we will mainly be using and shaping location data and venue data from Foursquare to draw out conclusions to the earlier questions.