**BAY WHEELS BIKE-SHARING STATION SEGMENTATION AND TRIP COUNT ANALYSIS**

# INTRODUCTION

Bike-sharing is an increasingly evolving concept across the globe, offering diverse benefits such as flexible mobility, reduced fuel use, the corollary reductions in emissions, and increased physical activity levels (*1*). Essentially, bike-sharing enables users to enjoy the advantages of biking as an active mode of transportation, without the complications of private bike ownership (i.e. purchase and regular maintenance). Appropriate station placement is recognized as a critical contributor to bike-sharing success (*2*). Literature suggests that stations in the vicinity of bicycle infrastructure, high density areas, and commercial facilities, represent higher bikeshare ridership (*3*–*7*). In this line, this report sets out to deploy the location data provided by Foursquare and explore the relationship between types of venues surrounding Bay Wheels bike-sharing stations, and their average daily and morning rush hour trip counts. The insights derived from these analyses can be used for varied local purposes such as to improve service levels of stations, better manage bike-sharing rebalancing, and optimize stations siting for enhanced system performance, as well as insights for new bike-sharing systems.

# DATA

Bay Wheels is a bike-sharing system operated by Lyft®, in San Francisco, East Bay, and San Jose. In this research, Foursquare location data are used to explore venues surrounding Bay Wheels bike-sharing stations. Subsequently, the publicly available anonymized trip logs of Bay Wheels (*8*) are used to investigate average daily and morning rush hour trips across May through August 2019.

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