

Title: Analysis of Taxi Trip Data

Abstract:

In urban transportation systems, taxis play a crucial role in providing convenient and flexible mobility options for commuters. Analyzing taxi trip data offers valuable insights into travel patterns, congestion levels, and overall urban mobility dynamics. This abstract presents a comprehensive review of recent studies and methodologies employed in taxi trip analysis.

Firstly, we delve into the sources of taxi trip data, which primarily include GPS devices, mobile applications, and governmental transportation agencies. These data sources provide a wealth of information, including trip duration, distance, origin-destination pairs, and timestamps, enabling researchers to analyze travel behavior at various spatial and temporal scales.

Secondly, we discuss the key objectives of taxi trip analysis, which encompass understanding travel demand patterns, optimizing taxi fleet operations, evaluating transportation policies, and mitigating traffic congestion. By employing advanced analytical techniques such as clustering algorithms, regression models, and network analysis, researchers can extract meaningful patterns and insights from large-scale taxi trip datasets.