## Abstract

Over the past few years, online map services have become an essential part of navigation, as people have shifted from physical directions and maps to digital navigation through online providers. These providers are however tasked with a monumental task of mapping the world and its intricacies with accuracy and precision, which is incredibly difficult with the scale of information. However, online map service providers are often unaware of the fidelity and accuracy of their services, and it would cost a great deal of time and cost to manually verify their data. With this in mind, we have developed a system for automatically identifying discrepancies and inaccuracies between Google Maps, Bing Maps, and OpenStreetMap using computer-vision techniques to determine the position and direction of arrows in map images from different providers. We are able to utilize these arrows to compare the road directions provided across the three providers to automatically identify discrepancies between them and manually determine where strong conflicts reside.