# ABSTRACT

*Currently, shortest path problem algorithms are needed in many areas, such as traffic routing, package delivery, public transportation, disaster response, etc. Moreover, researchers often compare and develop shortest path problem algorithms to deal with a particular case. Practitioners usually need to implement the shortest path problem algorithms with time-efficient and low-cost. Most of the existing shortest path problem algorithms sources are only in pseudo-code form and many of them are developed by various programming languages. Hence, algorithms are more difficult to compare and implement. According to this problem, this paper introduces DoRoute as a framework for the shortest path problem algorithms implementation. DoRoute is a Python-based framework that implements various shortest-path algorithms such as Greedy, Best First Search (BFS), Dijkstra, A*, and Floyd-Warshall algorithm. This framework is developed based on REST-API web service for easy data exchange and implementation. Furthermore, DoRoute is an easy-to-modify and suitable framework to develop the shortest-path solution with microservices architecture.*

*Keywords: Python Programming, Shortest path problem algorithm, Framework, REST-API*