PGD/M 11

Generating an Optimal Tour Plan with Optimization

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I certify that I have read this thesis and that in my opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

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DECLARATION

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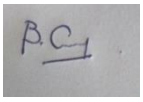
Sign: 

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ABSTRACT

Tourism is an industry which has a widespread across the globe. It was built around the natural desire in humans to travel, and to facilitate their needs during tours. Within the last two decades there has been a significant expansion in tourism along with the evolution in information and technology. With the growth of the availability of information a lot of travel destinations were added as new choices in tour plans. Having a big number of options always makes finalizing a plan difficult as it complicates choosing between items. Tourists nowadays are facing this difficulty where they end up with tour plans that are not personalized which they do not receive a satisfactory experience. The concepts of optimization in machine learning are used to generate optimal groups of options out of large collections. This research was conducted on using an optimization algorithm to generate an optimal tour plan for a user in a personalized manner. The read will describe the improvements made to the 0-1 knapsack algorithm and present an analysis of the evaluation outcomes.

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I would like to dedicate the findings of this research to all the explorers, tourists and travel lovers around the world. And I wish some day in the near future; this research will provide solutions and will fill the gaps identified in tour planning.

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