

Capstone Proposal
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National Park Trail Popularity Prediction

Problem: Park is not maintaining an adequate level of traffic.

Client/why do they care: Our client is a national park that has had a large drop in traffic while other parks are maintaining a consistent visit rate. Our client would like to design and start the formation of a new trail but wants to include as many top features and potential activities in order to attract as many visitors as possible.

What data/where it's from: The data has been collected by Kaggle user jane from company AllTrails which hosts a website and phone application that assists users in finding trails around the world. They offer filters including difficulty, length, rating, what to do, what to see, suitability, route type, trail traffic, and elevation gain. Users can also search by location or browse a map that displays trails.

Source:

<https://www.kaggle.com/planejane/national-park-trails>

Solution outline: Design a prediction model based off of known popularity ratings and the trails features in order to understand what specific trail features and activities have the biggest effect on a trail's popularity. Separate a sample of data from the model to test it after it has been developed.

Deliverables: The final product will be a short paper going over the process and analysis and how the final top features/activities were determined. Specific trail design suggestions may also be made depending on the information the client provides on their geographical location.