



Data Analytics

Micro Project - Over tourism

Introduction:

You and your team are part of a data science company. One of your biggest contractors is a tourism organization which is trying to provide an optimal experience at the beach of Scharbeutz for their customers. However, they are struggling with the consequences of overcrowding. You're given the task forecasting visitor numbers at an excursion destination is to be created, which predicts the days/hours with a high visitor load. For this purpose, relevant features and their interfaces are to be identified. Your starting point will be a datasheet you were provided with. Which includes timestamps with the according visitor numbers. However, you were also informed that there are also different other data sources available online which will help you to improve your model.

Tasks:

Your project should include the following points and should also be included in your project presentation:

- Data Understanding and Cleanup: Describe your dataset and give an insight into the data you're working with. This should also include visualization and giving an insight into its most important features.
- Choosing a model: Choose a model for your specific problem. This should include a definition of the prediction problem. Compare different models and explain which model you have chosen and why it's the best suited one for your project.
- Evaluation: Talk about the experiences you have collected during your project. What were your biggest challenges, how did you overcome them and talk about your biggest lesson learned during the project.
- Creating a presentation: Your presentation should include and represent the most important aspect of the tasks named above. It should also include a brief description of the single steps that you've taken to achieve your goals.

(Note: This project is meant to give you a head on approach on data analytics. Also, creative solutions such as feature engineering, the collection of additional data, etc. are welcome and will have a positive impact on the amount of bonus points you will earn from this project.)

Additional Information:

Should you get stuck on your search for additional data such as weather data, sensor data, etc. feel free to inform professor Kratsch to help you out.