Case studies

Email #1: Welcome to the Team – Visitation Prediction Project

Dear Akbar,

Hello! Welcome to the team! My name is Hala, one of the data professionals with the National Park Service and a member of the data team responsible for the visitation prediction project, and I'm excited to have you on board.

I am emailing to inform you of an upcoming project. This project is about predicting the number of visitors to the most visited parks. This is to help parks protect their resources and improve visitors' experience.

Key Details:

- Workflow:
1- The entire team will contribute to a strategy document that contains the project's scope and objective, data sources, and key milestones.
2- The team will clean and then analyze and explore data.
3- Then we will build machine learning model(s) and test them
4- Share results with stakeholders

- Objectives: build a machine learning model with at least 90% accuracy.
- Timelines: 12-week timeline
- Data considerations: we will analyze historical data and will consider factors like weather, temperature, user fees and traffic conditions to improve accuracy.

If you have any questions, feel free to reach out.

Hala,
Data Scientist
National Park Service Data Team

Email #2: Enhancing Visitor Experience – NPS Visitation Prediction Project

Dear Victoria,

Hello, my name is Hala, one of the data professionals with the National Park Service and a member of the data team responsible for the visitation prediction project. I am very excited for this opportunity to reach out and express our efforts to improve visitor experience at NPS.

Here in NPS, we have been working on improving visitor experience while protecting the park's resources. In 2022, the NPS received about 312 million recreation visits, an increase of 15 million visits from 2021. 26 percent of total visits occurred in the top 8 most visited parks. While the NPS strives to serve as many people as possible, unexpected increases in visitation can stress the natural environments and wildlife within the parks. Further, overcrowding decreases the overall quality of visitor experiences.

Which is why we are working on a project where we will predict the number of visits to the most visited parks using a machine learning model. This can help park managers better understand trends in future visits and take proactive measures to protect the parks' natural and cultural resources. Managers can also use predictive data to make informed decisions about implementing changes in park operations or infrastructure.

Since your role is essential to communicating NPS goals and efforts to the public, I'd love to collaborate and provide any insights you may need to craft engaging, informative content. Please feel free to reach out if you have any questions.

Hala,
Data Scientist
National Park Service Data Team