Moderna

Moderna is an American pharmaceutical and biotechnology company based in Cambridge, Massachusetts that focuses on RNA therapeutics, primarily mRNA vaccines. They have been pivotal in the creation of many vaccines, most well known for the COVID vaccine. Founded in 2010 by Derrick Rossi, an assistant professor at Harvard Medical School, Moderna has since grown to a multi-billion dollar company employing over 3000 people with worldwide impact.

Project Description

The goal of this project is to develop an ML use case (project code name: Maverick) based on User Data located in ServiceNow, which is a help desk service to manage tickets & satisfaction and organize onboarding / offboarding tasks, and OKTA, a device & software authentication service. The ultimate goal of this engagement is to help accelerate the digitalization of Moderna.

There are a few potential use cases outlined within the following verticals: “Perceive”, “Predict”, “Recommend”, and “Categorize”. After spending some time evaluating and discussing the feasibility of each use case, the team will choose the use case(s) which have the most value to Moderna.

A rough outline of the project may look like:

- Presentations detailing the specific use cases which have the highest value proposition and the findings/insights generated from the baseline models/scores developed
- Technical deliverables, including code repository, curated data sets, and model-based findings. The case team will report on the scalability of the use case and methods by which it can be deployed onto a larger scale.

Internal Partners:

- **David Johnson (Chief Data & AI Officer)**
- **Brice Challamel (VP Digital Empowerment)**
- **Adrian Masson(Innovation and Transformation Team)**
- **Carlos Peralta(Cloud Architecture & Data Engineering Global Director)**
- **Brent Mahan(Senior Director, Data and Analytics Enablement**

Datasets: Moderna-provided data on service tickets from User Data in ServiceNow.

Coding Languages: Python

Specific Skills

1. Research: Determining which of the potential use cases in the verticals listed above are most valuable to Moderna by looking into the technical and non-technical pros and cons.
2. Data Analysis: Analyzing the provided dataset to come up with useful interpretations and outtakes. Communicating the limits and findings of any model(s) to the client
3. NLP and Model Creation: Creating a group of models using NLP and other Machine Learning methods to derive insights from the datasets.

Expected Technical Difficulty: **Intermediate/Advanced**