

# Explainability, all you need.

04.06.2021

## Gupta, Amit Kumar

University of Siegen Adolf-Reichwein-Straße 2, 57076 Siegen Germany

#### **Overview**

Nowadays, corporations need frequent training for their employees to keep them in pace with the ever changing technological space. But, sometimes it is not at all easy for them to give the right training to the right employee. Due to this companies suffer loss of time and money on the other hand after training employees could not contribute to the company's success as it was expected from them. This all can be mitigated if we have an AI system where based on employee's data the system can tell the particular employee about the skills they need to get trained in.

#### Goals

- 1. Predict the required skills for an employee to get trained in.
- 2. Explain the reasons for the recommended skills.
- 3. Take the feedback from the instructor, and improve the recommendation based on the feedback.

### **Approach Proposal**

1. Skills Recommendation

To predict the best skills for the employee to keep him/her up-to-date, we need the historical data of the employee. By feeding the history of the employee our model can understand the employee in a better way and will be able to find out the behavior, interests and needs of the employee.

Behavior, interests and needs are the most important parameters on which an employee is most likely to make future decisions.

Eg; Jacob, is an employee working in an MNC which specializes in handling customer data. He has done his bachelors in cyber security and landed in a MNC which handles customer data using some CRM tools. Jacob is not happy with the work he is doing since his interests are in security. This reflects in the performance of Jacob. He is not performing to the expectations of the manager. So his manager suggested that he take some training on data handling. Since Jacob is not sure what he should do, he took the advice and went to take training on data handling, it is not very hard to see that he is repeating the same mistake.

So here comes our Al model in action. If the manager would have known the history of Jacob, he might have suggested to him some other skills to get trained in. But,

let's be honest and acknowledge that no manager has the time and resources to monitor the history and interest of the employee. Even if they can store it in a database, the manager needs huge data storage and related resources which are not cheap in the market. Using trained AI algorithms here could make the life of manager and the employee a lot easier. We just need data records of the employees and few computation resources and we can automate this process.

2. Explain the reasons for the recommended skills.

So now we have recommended skills for the employee but still the employee is not sure if the skills recommended by the Al model are suited for him or not. Now comes the explainability part of the project. In this we give the employee extensive explanation about the recommendations, how it is generated and key factors which contributed the most to this.

Now the recommendations will go for validation to the coach and he will let the
model know if the recommendations were suitable for the employee or not. If not
then we need to update thi in our database and perform retraining of the model.
 Sample explanation,

