#### **Predict employment termination**

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**Abstract**

The goal of this project was to use machine learning models to predict employment termination based on knowledge of an employees work in the company.

I worked with data which is in Kaggle website.

**Design**

This project originated in Data Science Camp as a project that tests how well students are in the skills they learned during camp

I chose this data which is related to employment termination to expect when employee will resignation based on age group and length of experience, it will also be taken some other features to predict the reasons of resignation.

**Data**

The dataset contains 49653 rows with 18 features for each

An employee whose employment is terminated has valid entries for termination date, termination reason and termination type. These 3 features should not be used for training the machine learning model because the features are results, not predictors, of employment termination.

A few feature highlights include age, experience, gender, city, department, job title, business unit, status (active, terminated).

**Algorithms**

1. The department name and job title features have multiple unique values. There may be a way to categories these features.
2. Grouping by age

**Tools:**

**- Environment:** Jupiter Notebook.

**- Programming Language:** Python**.**

**- Libraries:**

* Numpy and Pandas for data manipulation
* Scikit-learn for modeling
* matplotlib.pyplot and Seaborn for plotting

**Communication**

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