**Machine Learning Challenge 2021**

**Report Writing**

* **Feature Engineering:**
* **Learning Algorithm:**
* **Hyperparameter Tuning:**
* **Performance of the solution:**

* **Codalab Account Details:**
* The name of our group on the Codalab platform is **J\_N\_E\_K**. The account is registered with Kaushik Dey’s (team leader) Tilburg University e-mail account which is [k.dey@tilburguniversity.edu](mailto:k.dey@tilburguniversity.edu).
* Our group is registered on the Canvas with the name of **ML Challenge group 56 – new**.
* **Role of the Group Members**:
* **Joanna Hsu (SNR No. 2069004**)**:** Joanna Hsu had the most crucial role in the success of our group project. She researched articles, read various thesis papers, and shared her valuable ideas over our weekly Zoom calls. Apart from it, she cleaned the data, tried different encoding methods on the variables in the data frame, transformed them into an executable format, and built several models such as Linear Regression, Support Vector Machine (SVM), KNN, Ridge/Bayesian Ridge regression and so on.
* **Tran Thanh Nhan (SNR No. 2057181):** Tran Thanh Nhan had developed a Lasso Regression, Linear Regression, and a KNN model using the CountVectorizer method. She also had helped the team with her technical concepts and in the practical aspects of the project such as how to turn the output array in the dictionary format, for example.
* **Edoardo Saldarelli (SNR No. 2058627):** Edoardo Saldarelli has provided strategic support and technical advice about the implementation of different machine learning algorithms. Most importantly, he has also helped us choose the correct model and variables, and the visualization of the K-Accuracy plot. Additionally, he gave worthy pieces of advice for writing this project report.
* **Kaushik Dey (SNR No. 2060967):** Kaushik Dey helped us keep the track of the progress of the project and organized the weekly Zoom calls. He also helped us with building another Lasso Regression and ElasticNet model and writing the project report. Although, his contribution on the technical side is not as much as compared to other group members.
* **References:**
* <https://towardsdatascience.com/ridge-and-lasso-regression-a-complete-guide-with-python-scikit-learn-e20e34bcbf0b>
* <https://scikitlearn.org/stable/modules/generated/sklearn.neighbors.KNeighborsClassifier.html>