Learning Experience Data Mining

**Ivan:**

To begin with, data mining classes were interesting for me as I had an opportunity to develop my own predictive machine learning algorithms. I liked the way the course was taught because I could convert a theory part of a class into practice. I got a chance to develop 2 predictive models (KNN and Random Forest) with my classmate.

My classmate and I worked on the development of machine-learning algorithms that can help in the detection of diabetes. We explored the dataset, and all the variables we have and looked for additional information on the Internet to know the topic better. In my opinion, after this project, I can make similar ones, but with different datasets, to explore other businesses problems.

Based on practice, now I know how to build a machine-learning algorithm including all the steps, such as exploring the data, checking for missing values, making correlation analysis, applying feature engineering on different variables, standardizing, and most importantly evaluating the model’s performance.

**Pjotr:**

In my data mining class, I delved into the intricacies of machine learning models, gaining a deep understanding of their inner workings. I learned not only how to apply models like K-nearest neighbors (KNN) and Random Forest but also how to fine-tune them to achieve optimal performance. This involved selecting appropriate hyperparameters and handling class imbalances when necessary.

Furthermore, the classes highlighted the crucial phases in appropriately developing models. I noticed that the steps from data pretreatment through feature engineering had a considerable impact on model performance. I refined my abilities in dealing with missing data, scaling features, and creating new variables to improve predictive accuracy. Overall, this learning experience provided me with the information and methodologies necessary to build robust models capable of making accurate predictions, allowing me to fully utilize the power of data mining for informed decision-making.