

Project: A Prototype for a decision support system that uses predictive modeling

Predictive Analytics

Description: In this project, we will develop a predictive model and a decision support system (DSS) that evaluates the risk of Home Equity Line of Credit (HELOC). The dataset and the description of the data are included in this project (and additional information can be found here: <https://community.fico.com/s/explainable-machine-learning-challenge>).

Details:

1. Develop a predictive model to assess credit risk
 - a. Report on the performance of our model.
 - b. Compare our model to other models.
 - c. Explain why we selected the particular model.
2. Design and develop a (running) prototype of an interactive interface that sales representatives in a bank/credit card company can use to decide on accepting or rejecting applications.
 - a. What did we assume about the technical proficiency of the user?
 - b. How could the user explain predictions made by the model using the interface?
3. Prepare a report (5 pages) that summarizes the key ideas of our work.
4. Prepare a presentation (5 minutes long) with live demonstration of our system that covers the above topics and includes a discussion about lessons learned. Think about how to prioritize the content of the presentation given the background of our audience (the teaching staff). All team members will present.

You may find the package Streamlit (<https://www.streamlit.io/>) useful for constructing the prototype.