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# Case Study 1

A customer, Jason, requests an explanation from the bank to clarify the decision by their Artificial Intelligence (A.I.) algorithm to reject his loan to understand why his application for a loan was denied.

For this case study, we assume that Jason had no specialized knowledge of loan application processing, or computer routines ("algorithms"), or A.I.

The explanation Jason was given was itself created by an algorithm. The explanation contains both a graphical and a textual explanation of the A.I.'s decision to reject his application.

## The Explanation Offered by the XAI

*Start of Explanation to Evaluate*

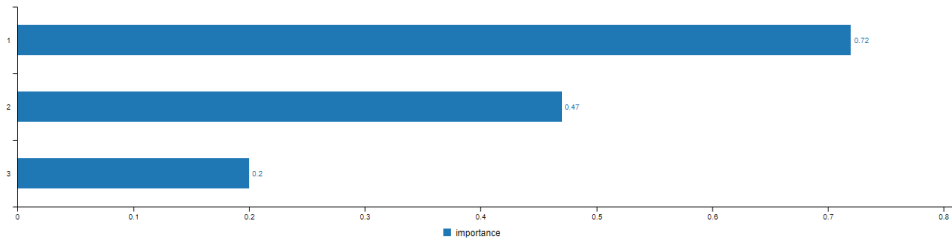
Several features in Jason's application fall outside the acceptable range. All would need to improve before acceptance was recommended.

**Factors contributing to Jason's application denial**

- 1. The value of **Consolidated risk markers** is **65**. It needs to be around **72** for the application to be approved.
- 2. The value of **Average age of accounts in months** is **52**. It needs to be around **68** for the application to be approved.
- 3. The value of **Months since most recent credit inquiry not within the last 7 days** is **2**. It needs to be around **3** for the application to be approved.

**Relative importance of factors contributing to denial**

While all three factors need to improve as indicated above, the most important to improve first is the Consolidated risk markers. Jason now has insight into what he can do to improve his likelihood of being accepted.



*End of Explanation to Evaluate*