Challenge

**FINTECH: Revolutionize Mortgage Origination**

Background

The mortgage origination process is cumbersome with many manual interruptions, takes ages and cost a fortune. A new mortgage takes up to 2 days of work in a Backoffice of a bank/insurance or pension fund and the clients wait several days to weeks by side the need to supply manually all required documents.

Envision a world, where all the required data are electronically collected, and an AI evaluate the case and propose an acceptance or rejection scoring. Multiple millions of CHF are saved and potential house or flat owners know their credibility and mortgage costs within minutes.

Challenge description

Develop an AI/machine learning hybrid model which transform below listed data in a scoring for the credibility of a mortgage application. Furthermore, make sure that the regulatory rules are enforced and validated.

Input data:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Modell | | | | | |
| Criminal record | **Spendings** | **Personal Data** | **Earnings** | **Assets** | **Real estate:** |
| Criminal record entry | Alimente | Age | Salary | Cash | Market value |
|  | Kredite | Civil status | Var payments | Shares/funds | Owner occupied |
|  |  | Nationality | Additional payments | Pension fund 3A |  |
|  |  | Employment status |  | Pension fund 2 |  |
|  |  |  |  | Real estate |  |
|  |  |  |  | Depts |  |
|  |  |  |  | Life insurance |  |

Output:

Scoring 1-10

1: Not meeting regulatory requirements

5: Regulatory requirements sharp fulfilled

10: Meeting regulatory requirement and very high and stable earnings vers mortgage

Resources:

* Test file with 1000 cases incl. rating

Regulatory Rules:

Owner-occupied residential property:

1. 10% from loan value out of liquidity not related to “Säule 2” pension found asset (in scope)
2. Amortization within 15 years to 2/3 of the loan value (out of scope)

Investment property:

1. 25% from loan value out of liquidity (in scope)
2. Amortization within 10 years to 2/3 of the loan value (out of scope)

Age:

* If mortgage requester is older than 60 years, calculate with only 30% of salary.

Loaner group:

* No US citizens

Contact

Markus Vogler

Co-Founder EXCELSIS

markusvogler@excelsis.info