The Risk of HELOC

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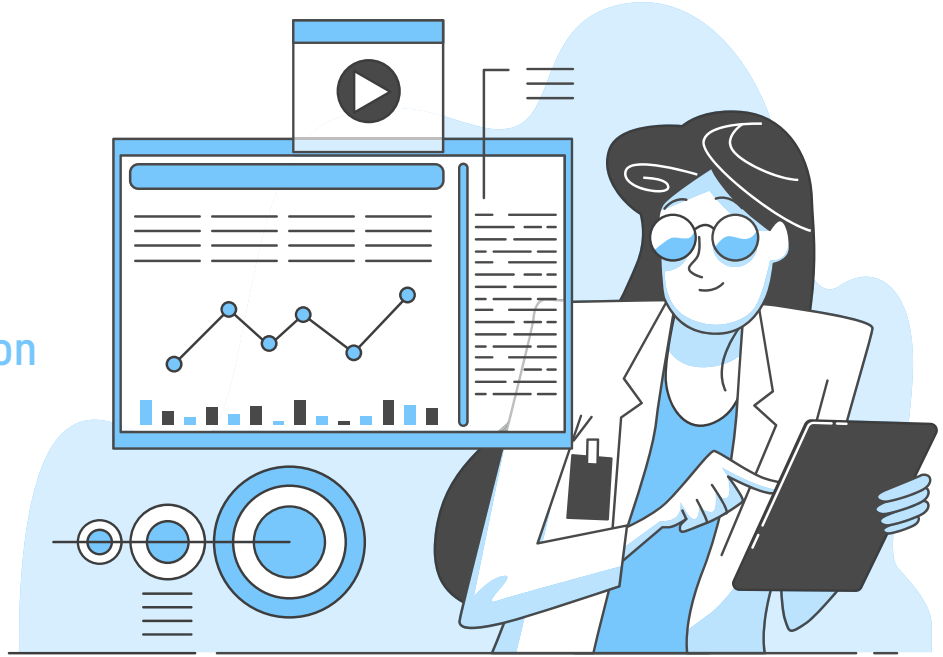


Technical Proficiency

01 Identify the level of technical proficiency that is expected of the target audience.

02 Consider the potential limitations or challenges that the target audience might face.

03 Determine the appropriate level of technical complexity for the interface.

04 Consider providing training or support resources for the target audience to improve their technical proficiency.

Predictive Model – Boosting

The three best performing models

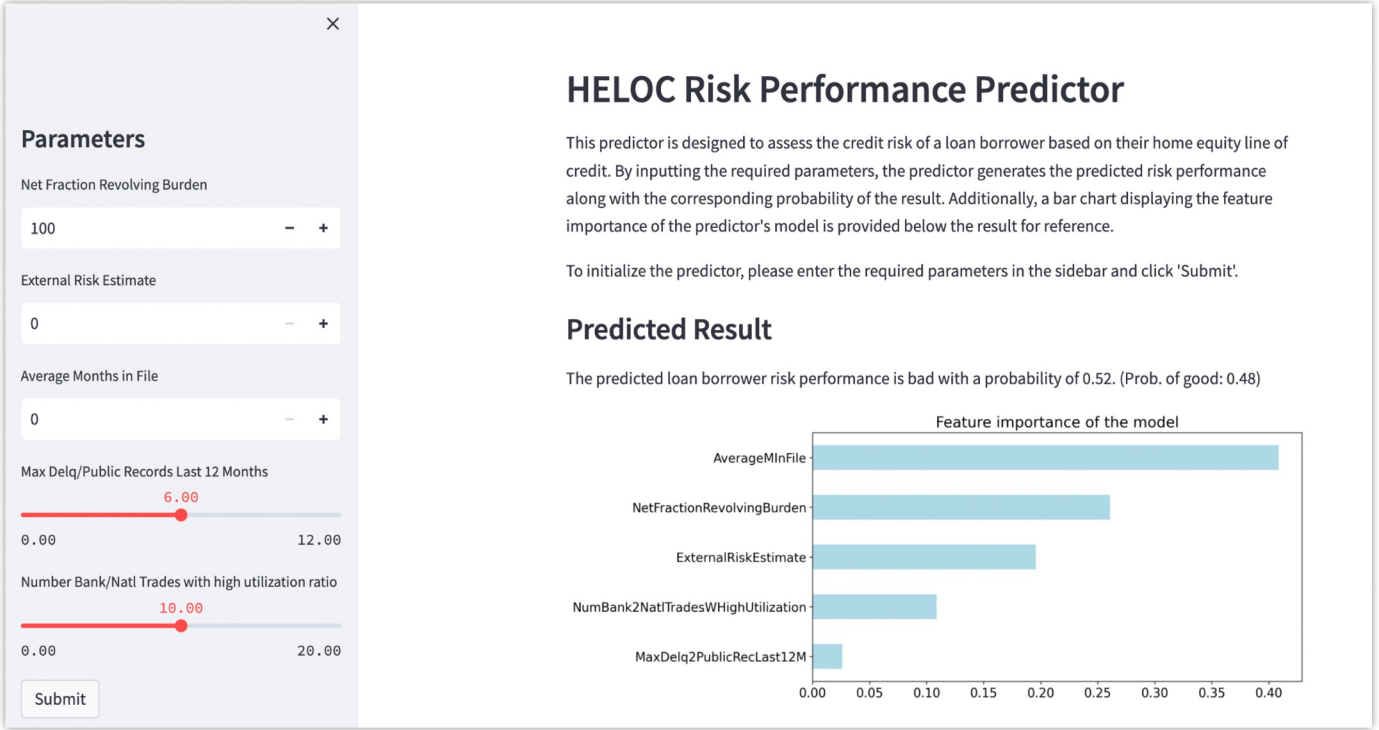
	Accuracy	Recall	Precision	F1	Final Score
Boosting	**73.55%**	75.29%	**75.07%**	**75.18%**	**74.39%**
LDA	73.04%	**75.48%**	74.28%	74.87%	74.14%
Log-Reg	72.89%	74.90%	74.34%	74.62%	73.84%

Final Score = 50% * Accuracy + 30% * Recall + 20% * F1

Design Considerations

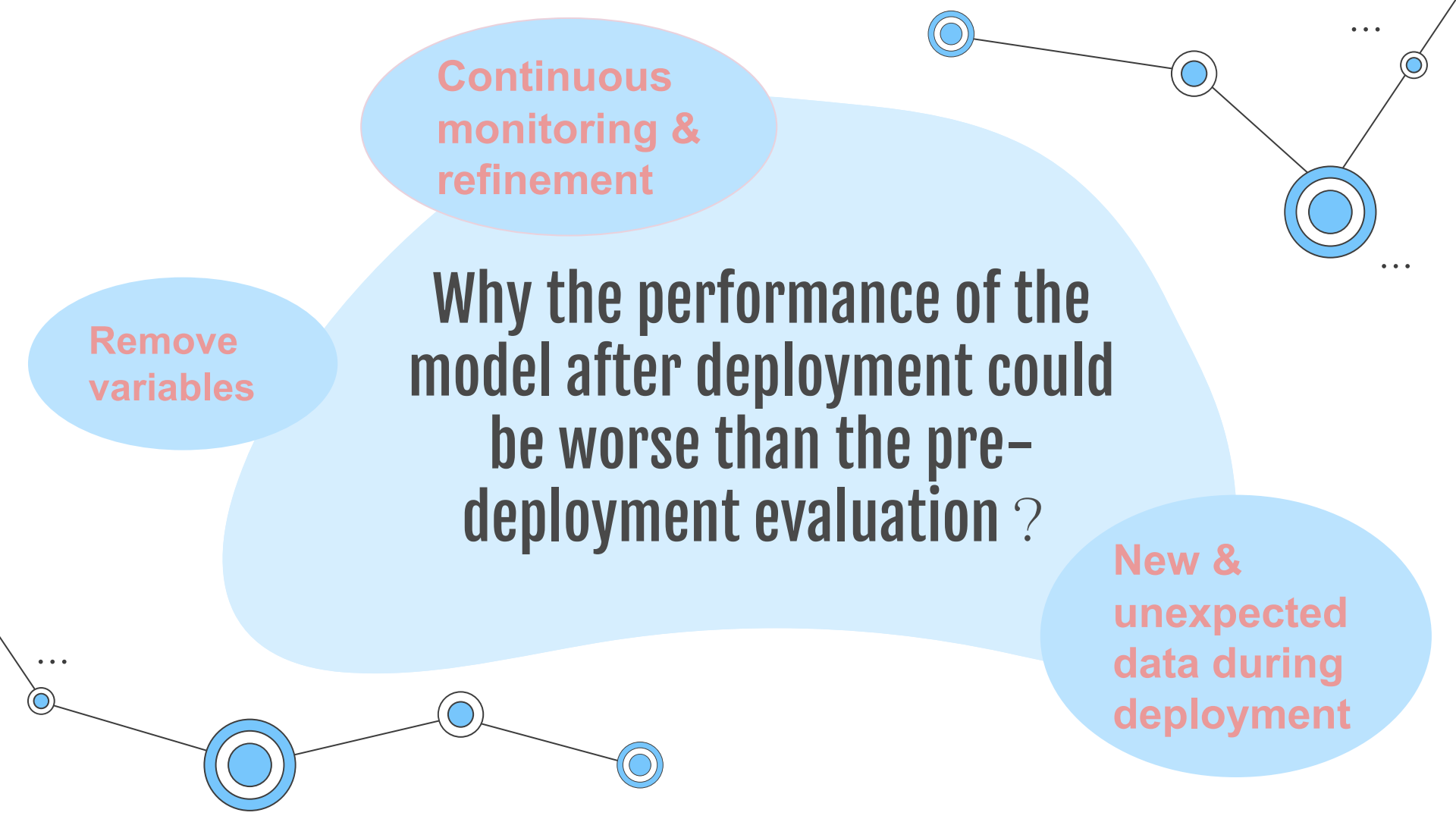
- Target user
  - Sales representatives with **2-3 years** experience
- User Background
  - Basic computer efficiency **without** any coding background
  - Basic statistic knowledge
  - Intermediate financial knowledge

Interactive Interface



The Limitations of Our Solution

- The predictive model is based on historical data and may not be fully accurate in predicting credit risk in new situations or for new borrowers.
- The model may be biased against certain groups of borrowers, such as those with limited credit history or from certain demographics.


Continuous monitoring & refinement
Remove variables
Why the performance of the model after deployment could be worse than the pre-deployment evaluation ?
New & unexpected data during deployment

Conclusion

Developed a predictive model and an interactive interface for evaluating the credit risk of HELOC applications.

Compared different models and found that Boosting had the highest performance in predicting credit risk.

Identified limitations and challenges of the solution, such as potential bias in the data and the need for ongoing monitoring and refinement.