

Model Fairness Documentation Checklist

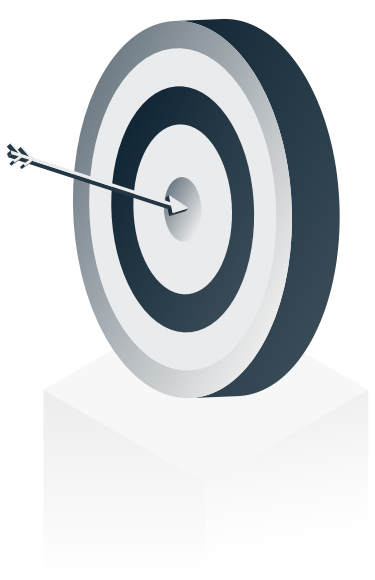


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Below is a rough outline of items to document as you are building a model; it is not in itself sufficient and is intended for example purposes.

This is a very generic outline and is intended to get you thinking about the kinds of things you will need to be keeping note of (and is not intended as legal advice!) The specifics of necessary documentation will vary by industry, company, and model purpose. You should consult your company's compliance and/or legal team to determine what documentation you should be creating contemporaneously as you build your model.

1 MODEL PURPOSE



What is the intended use of this model?

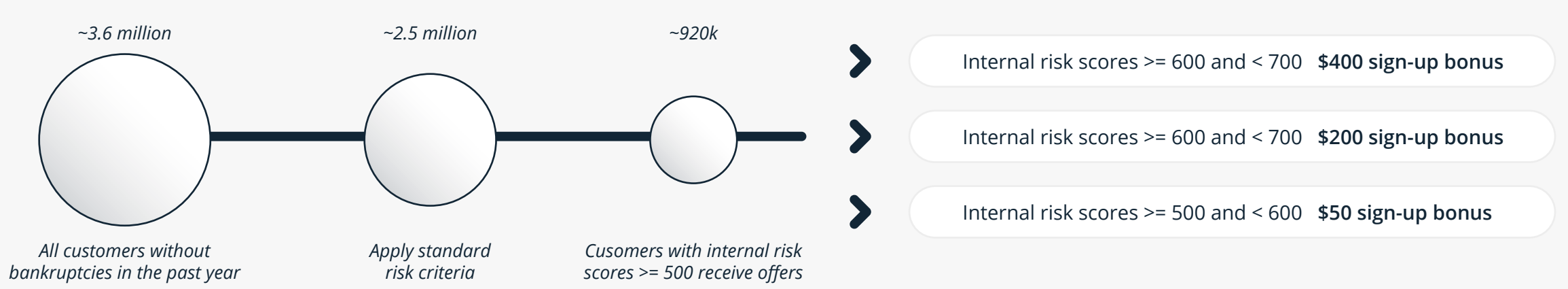
Are some model outcomes preferable to others?

For example, being approved for a loan is a better outcome than being denied a loan.

Even if no firm plans exist currently, could this model be repurposed in the future?

For example, if you are developing a model for marketing purposes, is there a chance it could be used for underwriting at some point?

Credit Card Sign-Up Bonus Model



2 TIMELINE



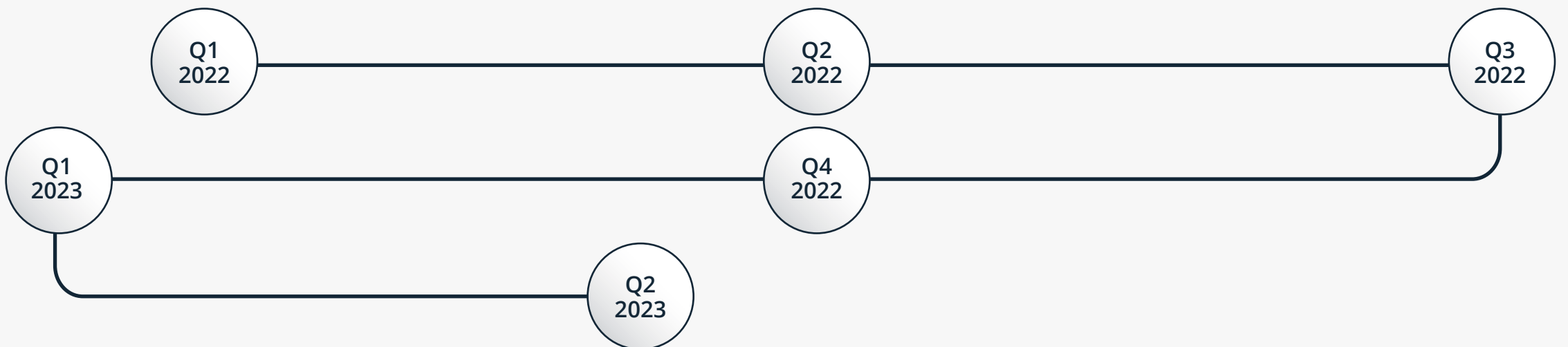
Is the model already deployed?

If the model is not deployed yet, what is the expected launch date?

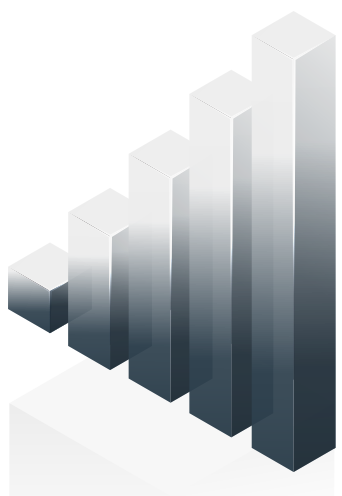
How long will the model be used?

If the model is in deployment, how long has it been deployed?

If so, has data collected during model deployment ever been analyzed for model performance or fairness?



3 FEATURES



Compile a list of all features used in the model.

For each feature, include a description of what that feature measures. Note the data source for each feature, whether a certain internal datastream, from a credit bureau, or from a third-party vendor.

Are any of the following features used in your data?

Note that depending on the usage (industry, model purpose, etc.) these features may be allowed. However, it is critical that you check with your company's compliance team. In addition to these explicit features, think about any features that could serve as statistical proxies (for ex-ample, length of account history could be a proxy for age, as someone would have to be at least 68 years old to have 50 years of account history.) Keep in mind that this is not an exhaustive list; only your legal and compliance team will know what to watch for in your particular use case.

- Age Apart from using it as a filter to remove individuals too young to enter into legal contracts or in other specific circumstances
- Sex/Gender
- Race
- Ethnicity
- Disability
- Familial Status Presence of children in a household or the expectation of children
- National Origin
- Marital Status
- Receipt of Public Assistance

VARIABLE NAME	VARIABLE DESCRIPTION	VARIABLE SOURCE	VARIABLE IMPORTANCE	IMPACT
Bankruptcy	Whether the client has a bankruptcy on file	Credit Bureau	46%	-
Credit_Score_X1	Internal credit score created using the 2022 risk model	Internal	15%	+
Credit_Score_X2	Internal credit score created using the 2022 alternative risk model	Internal	12%	+
Time_On_File_Rev	The oldest revolving credit account on file measured in months	Credit Bureau	10%	+
Time_On_File	The oldest account on file measured in months	Credit Bureau	6%	+
Account_Bal	The total amount of cash in the customer's checking and savings accounts, measured in dollars	Internal	6%	+
N_Accounts	The number of accounts the customer has across all products	Internal	5%	+

4 MODEL DEPLOYMENT



Will model deployment be constrained to a certain geography?

Common geographies include:

- States or collections of states
- Regions (e.g., Northeast, Midwest)
- Metropolitan Statistical Areas (MSAs)

Will human discretion play any part in the model outcome?

For example, are applications initially rejected by the model reviewed by humans for a second look?

Is it providing a final decision or used in conjunction with other tools as a part of a pipeline?

Do you have questions on employing model fairness best practices to your use case? Are you interested in using SolasAI's cutting edge software to reduce risk to your business while maintaining model predictive accuracy?

Send a message to info@solas.ai

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