

- Suggest new features to create more value:
- industry restriction + NAICS categorization → autocat → Don't spend time or even went into CRM w/ low/no go apps.
 - end user reconciliation → validate info/reduce risk
 - "Policy checks" → autocat based on rules OR Anomalies
 - Daily CRM sync Report → get notified on status
 - "new"
 - Populate spreadsheet templates
 - Email auto-reply → request missing docs.
 - Use Heron output w/ your existing excel templates...

Suggest settings:

→ Auto approval? ~~Assumption is that they want Heron.~~

Suggest New areas of Value creation:

→ B2B could analyze transactions for existing customers + proactively share offers.

⇒

How is it going / Results:

Value:

- Identify missing data (e.g. months / statements) ⇒ data quality metrics
- Identify data anomalies (e.g. fake stuff) ⇒ # of anomalies
- Identify risk flags (e.g. NSF, hidden loans) ⇒ risk metric
- 10x increase in processing speed ⇒ # of transactions ^{+ Apps} vs manual
- auto-categorization (e.g. Revenue, Debt, etc.) ⇒ processing quality ex. cat. coverage
- auto sync to CRM ⇒ ??
- identify existing/hidden MCAs ⇒ distinct means from ...
-

Metric

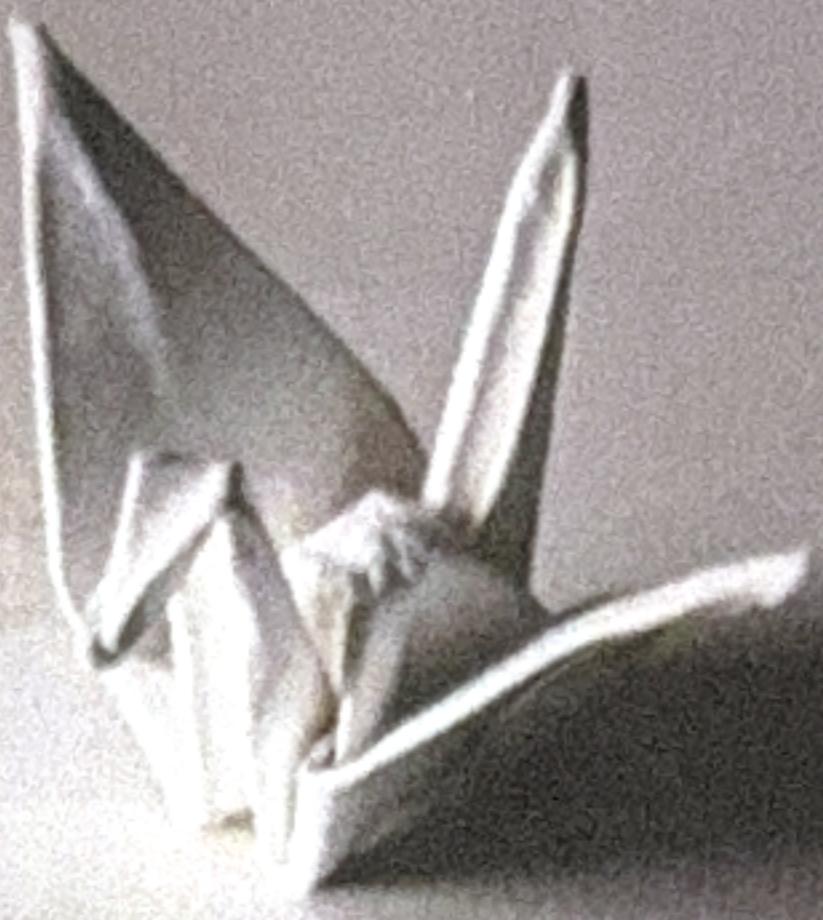
Outcome / Action / Next Step

- ⇒ Ask end user for info
- ⇒ Auto reject & # of applicants
- ⇒ Auto reject

⇒ Utilize historical data

Next steps:

- implement addtl. operational improvements (e.g. set up export format, auto-request for info, etc.) ⇒ "new features"
- set policies for auto-reject (risk / incomplete / not fit end users) (e.g. metrics / specific companies in the dataset)
- review top applicants + metrics and set policies for auto-offer (e.g. run analysis / segmentation on companies X # of companies)
- look at existing customer transactions for proactive offers. (look at correlation w/ Heron score.)



[Heron] Product Ops Take-Home

Context

Data

company_metrics.csv

metrics.csv

Brief

Welcome to the Heron Data Take-Home! This task will give us the opportunity to assess your problem solving and data analysis skills, and give you an opportunity to tackle something close to what you may be asked to solve on the job.

Some hands-on data manipulation and analysis will be required! Solving problems with data is essential across our business - it is especially important when working with our product and our customers, as this role would do extensively.

Python/
Pandas

basic analytics?

⇒ Jupyter notebook might be most helpful output

⇒ Also excel...

Context

Imagine that you are working on a special project with an imaginary business bank and new Heron customer, Bank of Small Business. The customers of Bank of Small Business are themselves other companies — small businesses — some of whom have applied for a loan with the bank. → Are all applicants current bank customers? or are most new customers?

Heron could offer products to existing clients.

Bank of Small Business employs one credit underwriter — somebody who reviews loan or funding applications and determines whether to offer funding to a customer or not. Before Bank of Small Business implemented Heron last week, the credit underwriter would:

1. Review every company manually by inspecting various documents, including application forms and bank statements,
2. Extract pertinent pieces of information from those documents,
3. Perform some analysis on every company's financials by inputting transactions into a Sheets or Excel template and performing calculations, and
4. Make an offer/no offer decision for each company, including setting the terms of or pricing the deal in the case an offer is being made.

Upon implementing Heron, Bank of Small Business will have the ability to automate most of steps 1 and 2 above. The rest of their process remains unchanged.

Data

Now that Bank of Small Business has access to Heron, they have more data and insight about their customers than before. Based on the companies they have loaded into Heron so far, we (Heron) have compiled the following datasets:

company_metrics.csv

company_metrics.csv 14844.4KB

a CSV file containing a list of companies and metrics

Columns:

1. heron_id a unique identifier for the company (applicant)
2. metric_label the name of the metric, e.g., "revenue"
3. metric_date_range what period of time applies to the metric, e.g., "last 90 days"

What are all the values/options?

↳ These seem like meta analyses of overall performance? e.g. describing the underlying transaction extraction + quantifying.

↳ Are these metrics visible to BSB? Or only on the backend of Heron?

Transaction Category \Rightarrow "Revenue", or "Debt/investment"

3 data quality checklists:
Data Sources, Accounts, Transactions.

\Rightarrow What does this mean?

4. `metric_value` the actual value of the metric

Output \Rightarrow Disk-based OR API

metrics.csv

metrics.csv 6.4KB

Companies \Rightarrow Heron-id, endeavour-id, name, status, confidence, history(#days), last-updated, created, summary, Transactions,

"Loan applicant" Translation chart:
 \rightarrow company
 \rightarrow customer
 \rightarrow heron-id (PK from Heron)
 \rightarrow endeavour-id (FK from Banks)
 \rightarrow name
 \rightarrow submission.

a CSV file containing a list of metrics and their definitions

Columns:

1. `metric_group` the category of the metric
2. `metric_label` the name of the metric
3. `metric_description` a description of the metric
4. `metric_unit` the unit of the metric, with the following values

Value:

\rightarrow Identify missing data (e.g. months/statements) \rightarrow + auto-notify?? \rightarrow coverage ratios

\Rightarrow What does a categorised transaction merchant look like?

\Rightarrow Output options

\rightarrow Async \Rightarrow 3 min, robust analysis, 20k Batch
 \rightarrow Sync \Rightarrow instant, 2000 Batch

\rightarrow How many transactions does a typical applicant have?

Brief

Imagine you are catching up with the **Bank of Small Business** for the first time after Heron was deployed for their use. You know that they will be interested in two things:

① Is Heron working as expected?

② How can we use Heron output to improve our underwriting process?
Which companies should we focus on underwriting?

The brief here is intentionally open-ended - we're looking to understand how you would approach this and the analysis you would do to support your approach.

Please submit a document or presentation containing your response - we're not particular on format, a Google Doc or shared Notion document is totally OK in lieu of slides. Please also submit with your work any relevant working documents — e.g., spreadsheets, code, slides or other notes and documents.

Finally, please note that we may ask you to present your work in a future interview.

Good luck!