## Al-generated investment tool

Technology   Electronic com Apple Inc. is an American multina		n consumer electronics, computer software, and Collapse Overview		Read more	
Company risk score 30 Low risk	Stock price \$ 135.27 + 0.060   0.044 % Last updated: 2023-01-19	Fundamentals overview Market cap Average dollar volume Price to earnings	Key ( \$2,141,212.6 M Mate \$10,705.1 M Goint	points rial weakness in the last g concern in the last 4 ye lor: Ernst & Young LLP,	ears: No
Ri 40 2019 2020 Average comparator risk s	ak score history 2021 2022 2023 core = 54	Key financial metrics           2021-09-30         2021-12           Revenue         \$82,688.0 M         \$123,251           EBITDA         \$26,909.0 M         \$44,632           EPS         1,24         2,10	1.0 M \$96,587.0 M \$82,240.0 M	и \$89,319.0 M	Comparators ALPHABET INC (SGOOGL) ( 59
Highlights	Annuals & Quarterlies		Summary	EC Comments	Transcripts
Category All red flag categories		Severity All (High, medium, low)	Algorithmic confid		Date v

## How we increased revenue by 3x in one quarter through data visualisation and timeline design

Formely Bedrock AI Husdon Labs

FinTech, SaaS, B2B

Using AI for capital markets

Designing AI-powered tools for real-time financial assessments improves Q3decision-making by enabling timely and accurate risk evaluation.

Q3-Q4 2022



## Project overview

In the world of capital markets, it's crucial for investors to stay informed and keep track of companies in which they have invested or are considering investing.



### Market and financial analysis tools can make a significant difference in investing and trading performance.

Husdon Labs is one of these financial analysis tools. It extracts qualitative red flags from securities filings and predicts fraud in real time. Additionally, it offers Timeline View, Blackline/Diff, and Algenerated News Feeds.

Hudson Labs	Home	9 Ideas	WALT DISNEY CO (\$DIS)
		WALT DISNEY CO \$D	IS
Overview	$\rightarrow$	Overview	
Competitors & peers		Overview	
Supply Chain		Business Segments/Products/Services Source doc name	
Labor		<ul> <li>DMED encompasses the company's global film and episodic television cont activities.</li> </ul>	tent production and distribution
Management		<ul> <li>DPEP includes theme parks and resorts, Disney Cruise Line, Disney Vacatio Expeditions, Adventures by Disney, and licensing of Disney IP to various ma</li> </ul>	
Key themes		Customers Source doc name	anulacturers and retaiters.
Red flags		<ul> <li>The company's customers include individuals and families who visit its the Disney cruises, and purchase Disney merchandise.</li> </ul>	me parks and resorts, go on
Outlook		• The company also licenses its IP to manufacturers and retailers who sell Di	isney-branded products.
Documents		Customer dependence Source doc name	

## How does Hudson Labs assist investors?

As an AI investment tool, it gathers important metrics from various sources. This valuable information gives investors and advisors insights into market dynamics, assisting them in making informed investment choices.

#### My Role

As the Product Designer, I helped Husdon Labs shape and increase the visibility of high-impact information by highlighting real-time and relevant information, improving analysis efficiency.

## What was the key problem?

The current design lacks in effectively communicating vital information to investors and financial advisers, increasing the chance of the missing investment opportunities.

#### Consequences

- 😕 Decreased user satisfaction
- 📉 Led to reduced engagement

## **Proposed solutions**

Increased content quality and enhanced category visibility

#### Data visualization

Utilizing a dashboard to present sensitive data to users allows them to swiftly grasp real-time changes in the capital market and make informed investment decisions.

#### Timelines

Incorporating timelines enables users to effortlessly monitor progress and updates over time.

RISK SCORE	STOCK PRICE	FUNDA	MENTALS OVE	RVIEW		2	KEY POINTS	i
75	\$ 1.55	Market	ар		\$ 1.1	М	Price to earn	nings N/
High risk	+0.12   7.73% EOD   2022 / Jan / 21	Average	dollar volume		\$ 3	М		
<b>RISK SCORE HISTORY</b> Average comparator ris	sk score = 70	<b>FINANC</b> As at Ma	IAL METRICS				2	COMPARATOR
100			Fiscal quarters	3Q FY2021	4Q FY2021	1Q FY202	22   2QFY2022	AVAYA (AVYA)  55
70		Revenue	45,00 M	43,00 M	12,00 M	10,00 M	22,00 M	ADTRAN (ADTN)  6
		EBITDA	45,00 M	32,00 M	67,00 M	66,00 M	89,00 M	AUDIO (AUDC)   38
2020 2021	2022 2023	EPS	34,00 M	78,00 M	98,00 M	14,00 M	11,00 M	ARINA (ADPT)   57
		Time	line	Summary				
	Highlights Annuals & Q				, Jon-Timely F	ilings	SEC Comme	ents
	Highlights Annuals & Q Category   All red flag categories			5-1s 🛛 N	lon-Timely F	0	SEC Comme	ents.
2022-06-03	Category   All red flag categories On June 3, 2022, Amazor Clark, CEO Worldwide Co	Quarterlies	8-Ks Severity   High e "Company") esigning from th	S-1s N - Medium announced the e Company, e	Algorit Algorit hat David H.	thmic confide		
	Category   All red flag categories On June 3, 2022, Amazor Clark, CEO Worldwide C July 1, 2022. Non-GAP me	Quarterlies	8-Ks Severity   High e "Company") esigning from th ns & one-time charge	S-1s N Nedium announced th e Company, e so PPP Hig	Ion-Timely F Algorit nat David H. effective as or gh	f	ence   Highest	×
2022-06-03 Filing type Period: 2022-06-01	Category   All red flag categories On June 3, 2022, Amazor Clark, CEO Worldwide Co	Quarterlies	8-Ks Severity   High e "Company") esigning from th ns & one-time charge	S-1s N Nedium announced th e Company, e so PPP Hig	Ion-Timely F Algorit nat David H. effective as or gh	f	ence   Highest	×
2022-06-03	Category   All red flag categories On June 3, 2022, Amazor Clark, CEO Worldwide C July 1, 2022. Non-GAP me	Quarterlies	8-Ks	S-1s N n - Medium announced th e Company, e s PPP Hig udit committe h to hold offic	Ion-Timely F  Algorit  Algorit A	f ext Annual	ence   Highest wances PP Me	×

## Besides being easy to use, the simplicity of quickly accessing ML analyses and predictions were crucial.

Simplicity and user-centricity were the core principles guiding the design process while providing informative machine-learned forensic risk assessment tools.



## Discovery & Define

To identify user insights and redefine the tool's architecture, I analyzed competitors, used user feedback to find pain points, and collaborated with key stakeholders to define better success metrics.

## User profiles

#### Financial advisor

A financial advisor specializes in the capital market advises clients on investments and risk management.

#### Investor

An investor observes trends and finds investment opportunities in the capital market.



- To make informed investment decisions based on data and analysis.
- To stay up-to-date with market trends and news.
- To manage their clients' investments effectively and efficiently.

### Challenges

- Insufficient time to read lengthy content.
- Lack of time to research and analyze market trends and news.
- Ensuring no missed investment chances.

## User research overview

Users are mostly white men aged 25 to 55 year-old



#### Conducting 1-1 research



Users feedback by communication through email, call or message

## User insights



#### Information overload

Lack of visual aid, increasing risk evaluation and hindering financial decision making.

#### Difficulty in finding crucial data

Causing missed opportunities and inaccurate evaluations because of confusing navigation.

#### Lack of machinelearned prediction discovery

Missed opportunities for potential stock collaps., having financial consequences.

Needs

- Monitoring financial updates from a company for investment purposes.
- Staying updated with real-time data.
- Utilizing simple navigation to predict investment risks.
- Improving decisions with thorough company screening.

## **Research results**

#### **Q** Learnings

- Users must prepare for stock market collapses.
- Users need company screening for price insights.
- Users want to track company changes for investing.



Hudson Labs' ML/AI predicts stock collapses.

#### What went wrong

- Users need to find the AI informant faster.
- Users worry about missing investment opportunities due to limited data visibility.
- Al-generated text can be too long for quick reading.

#### **Opportunities**

- Enhancing visibility for better information access.
- Providing clear navigation for company screening.

The truth is that most investors and financial advisers lack the time to read lengthy texts regarding additional investment risks in a company unless the information is presented in a simple, delightful manner that doesn't demand extra effort to maintain.

## We could identify pain points and make the workflow more efficient with fewer steps and better data visibility.

## Study competitors and their reputation

#### "SPAC Mania's ugly end yields \$46 billion of investor losses"

-Blomberg - By Jonathan Randles and Amelia Pollard August 27, 2022

We discovered "Overwhelming interface" and "Complex navigation" as major user experience issues in our competitors and came up with solutions to address these issues. This allowed us to surpass our competitors.

THE		Filing Summ	ary												
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HK / 10	Proxy	SEC Comme	nt S-K	20-F S-1											
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mefrar	ne: 90 Days	7 · · · ·	Sour	ce: 🗌 All 💆 Wa	atchlist 🔲 Cover	age Enter Ti	ckers		Update View						
nited to (	Companies Reviewer	By Analysts - Cli	ck Baxes to See	Disclosures - Alpha+ W	ersion				Chi	inges: New	Big M	edium Small	Timy N	o Changes	Not in Filing
	Ticker	Filing Date	- Form	New Risk Factors	Changed Risk	New Footnotes	Changed Footnot	Acct	- Disclosures	Properties	Legal	Controls	Other info	Exec Comp	- Related Party
1	IDT	Oct-16	10-K	1 new	17	4 new	21					. BP	BP	BP	EF
2	STRP	Oct-10	10-K	2 new	24	3 new	12		EP			EP	EP	BP	BI
3	OOMA	Sep-07	10-Q		7	1 new	11					8.0	BP		
4	UBNT	Aug-25	10-K	7 new	29		15				BP	1	EP	BP	E
5	ZAYO	Aug-22	10-K	4 new	14	1 new	16				BP		EP	BP	B
6	VPLM	Aug-14	10-Q				9		EP				BP		
7	wow	Aug-14	10-Q			1 new					BP	BP	EP		
8	TWERD	Aug-11	10-0			1 new	15		BP						
9	HCHC	Aug-09	10-Q			1 new	21	BP			BP	BP	BP		
10	NIHD	Aug-09	10-0	4 new			9	EP	BP		BP				
11	CALL	Aug-09	10-0			1 new	16		EP		EP	BP	EP		
12	ATNI	Aug-03	10-Q				10				BP	BP			
13	POVW	Aug-03	10-0		1	1 new	10		EP		BP	BP	BP		
14	HCOM	Aug-03	10-0	1 new			13	BP			EP	BP			
15	RNG	Aug-07	10-Q		15		12					BP	BP		
15	BSFT	Aug-07	10-Q				10				BP	BP	BP		
17	CTL	Aug-07	10-0	1 new	18		13				EP	BP			
18	LMOS	Aug-07	10-Q				16						BP		
19	CCI	Aug-07	10-Q	4 new		1 new	10	BP			EP	EP			
20	RNET	Aug-07	10.0				13					BP	EP		
21	GOGO	Aug-07	10-Q				17	6P	BP		BP	62	BP		
22	USM	Aug-04	10-Q				8		BP		BP	BP			
23	CBB	Aug-04	10.0	13 new			8	BP	BP		BP	BP	BP		
24	LVLT	Aug-04	10-Q				10				BP	BP			
		1	10.0												

## What needs to be done?

Optimizing the user flow for increased efficiency, fewer steps, and improved data visibility.

### Why should it be done?

Assisting users to make quick financial decisions.

## How might we do this?

Designing an information architecture to showcase Al-generated financial text assessment for user's needs.

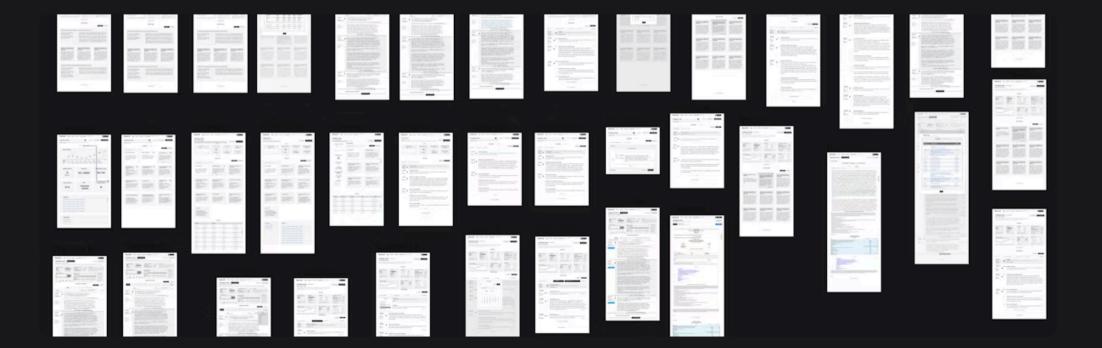


## Solution & Design

The proposed solution introduced comprehensive company screening options based on risk scores, stock price, red flag categories, market cap, and ratios. The outcome significantly impacted user experiences and facilitated informed investment decisions.

## Conceptualisation

I started creating the information architecture and low-fid concepts for primary use cases. After having a goahead from the Stakeholders on the mockups, we began to conduct usability tests with the low-fidelity mockups. Once we had confidence in the design, we began digitalizing designs.



## Company screening

Reporting dashboard and timeline view provide quick access to critial information across company screening. It enables users to get qualitative and quantitive insights and make well-informed decisions.

MICROSOFT	CORP (\$MSFT)			Email FOI reports	Add to watchlist
	an American multinational technol	ogy company which produces computer software, co is line of operating systems, the Microsoft Office suit			
RISK SCORE	STOCK PRICE	FUNDAMENTALS OVERVIEW	2	KEY POINTS	

Sheida 🗸

▲ Get emails with new red flags

Search company

Q

Hudson Labs

News

Screening

User Guide

RISK SCORE	STOCK PRICE	FUNDAMEN	TALS OVERV	IEW	2	KEY PC	DINTS	
75	\$ 1.55	Market cap			\$ 1.1 M	Price to	earnings	NA
High risk	+0.12   7.73% EOD   2022 / Jan / 21	Average doll	lar volume		\$ 3 M			
RISK SCORE HISTOR		FINANCIAL As at March					2	COMPARATOR
100			4Q FY2021	3Q FY2021	2Q FY2022	1QFY2022		AVAYA (AVYA)  55
70	**************	Revenue	45,00 M	43,00 M	12,00 M	10,00 M		ADTRAN (ADTN)   6
		EBITDA	45,00 M	32,00 M	67,00 M	66,00 M		AUDIO (AUDC)   3
2020 20	21 2022 2023	EPS	34,00 M	78,00 M	98,00 M	14,00 M		ARINA (ADPT)   57
		Timeline	S	ummary	)			
					)			
Highlights	Annuals & Quarterlies 8-	Timeline Ks S-1s		ummary -Timely Filings	) Sec	C Comments	Tr	anscripts
Highlights A ategory II red flag categories			Non 2	-Timely Filings	SEe		Date	anscripts
ategory		Ks S-1s Severity All (High, medium, low	Non	-Timely Filings	rithmic confiden d H. Clark,		Date	

## Stay informed about price movements

Via risk analysis features

Introducing extracted ML data to predict malfeasance before stocks collapse helping users

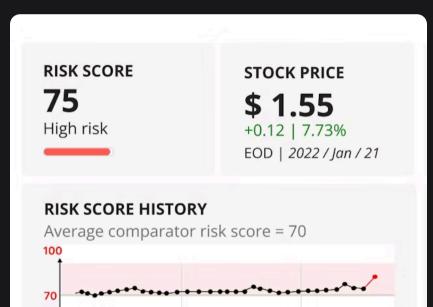
RISK SCORE 75 High risk	<b>STOCK PRICE</b> <b>\$ 1.55</b> +0.12   7.73% EOD   2022 / Jan / 21	FUNDAMENTALS OVERVIEWImage: Comparison of the systemMarket cap\$ 1.1 MAverage dollar volume\$ 3 M					KEY POINTS Price to earnings	
RISK SCORE HISTO Average comparato		FINANCIAL As at March					2	COMPARATOR
				3Q FY2021	2Q FY2022	1	1QFY2022	COMPARATOR
Average comparato	or risk score = 70		2022	<b>3Q FY2021</b>   43,00 M	<b>2Q FY2022</b> 12,00 M	I		
Average comparato	or risk score = 70	As at March	2022 4Q FY2021	-128		1	1QFY2022	AVAYA (AVYA)  55

## Make smarter decisions

2022

2023

With company screening options



2021

2020

#### Risk scores

Screening uses machine learning to score risk based on historical data and market trends. This predicts investment risk.

#### Stock price

The screening will display stock price, including market value, update, and change.

#### History

The screening option includes analyzing company risk score history to track risk profile and assess trends in perceived riskiness over time.

## Never miss a red flag

By AI-generated timelines

			Timeline	Summary		
Highlights	Annuals & Quarterlies	8-Ks	S-1s	Non-Timely Filings	SEC Comments	Transcripts
Category All red flag categories	~	Severity All (High	<b>y</b> n, medium, low)	Algorithr All	nic confidence 🛛 🗸 🗸	Date Jan 1st, 2022 to today
2022-06-03			•	any") announced that David H. Company, effective as of July		
Filing type <b>Period:</b> June 1st, 2022	2022. Non-GAAP metrics	Exclusions	& one-time charges			
	Mr. Chin-Shyh Ou serve	es as a finar	ncial expert to t	the audit committee. Reserves,	accruals & allowances	
				, each to hold office until the n		
				sor is elected and qualified, by our independent auditors for t		

## Track investment goals

Through summary view

By providing risk impact assessments and context users need to accurately evaluate risk

	Timeline	Summary	
Highlights Annuals & Quart	erlies 8-Ks S-1s	Non-Timely Filings	mments Transcripts
Category All red flag categories	Severity All (High, medium, low)	Algorithmic confidence	Jan 1st, 2022 to today
ROCKET LAB USA INC (\$RKLB) Accounting 2023-03-07   10-K   \$2.1 B The Company considered the change to be a change in accounting estimate effected by a change in accounting principle, an	GENCO SHIPPING & TRADING LTD (\$GNK) Management Turnover 2023-03-07   8-K   \$828.7 M On March 6, 2023, Robert Hughes resigned as the Chief Operations Officer of Genco Shipping & Trading Limited (the "Compa	VIRGIN GALACTIC HOLDINGS INC (\$SPCE) Management Turnover 2023-03-07   8-K   \$1.5 B On March 2, 2023, the Committee dismissed KPMG LLP ("KPMG") as the Company's independent registered public accounting fi	BOSTON BEER CO INC (\$SAM) Management Turnover 2023-03-07   8-K   \$3.9 B On March 3, 2023, Frank H. Smalla informed the Company that he was stepping down after seven years as the Company's Trea

## Better flag ranking

By supplying different colors to indicate the severity level

V

V

×

#### Related parties, conflicts & other relationships

The following nominees were elected as directors, each to hold office until the next Annual Meeting of Shareholders or until his or her successor is elected and qualified, by the vote set forth below: The appointment of Ernst & Young LLP as our independent auditors for the fiscal year ending December 31, 2022 was ratified by the vote set forth below: The compensation of our named executive officers as disclosed in the proxy statement was approved in an advisory vote, as set forth below: The Amendment to the Certificate to effect a 20-for-1 split of the Company's common stock and a proportionate increase in the number of authorized shares of common stock was approved by the vote...

#### 2022-04-29 Reserves, accruals & allowances

2022-05-27

2022-05-25

View HTML >

10-Q

2022-03-31

8-K

View HTML >

As a measure of sensitivity, for every 1% of additional inventory valuation allowance as of March 31, 2022, we would have recorded an additional cost of sales of approximately \$390 million.

#### Non-GAAP metrics, exclusions & one-time charges

The decrease in operating cash flow for the trailing twelve months ended March 31, 2022, compared to the comparable prior year period, was primarily due to changes in working capital, partially offset by changes in net income (loss), excluding non-cash expenses.

#### Reserves, accruals & allowances

The inventory valuation allowance, representing a write-down of inventory, was \$2.6 billion and \$2.5 billion as of December 31, 2021 and March 31, 2022. [*First filed: yyyy/mm/dd* 

View all red flags in this filing 🕀

- Red flags are high impact, recent flags like restatements, new investigations and CFO departures.
- Orange flags are red flags that are less recent, lower severity or flags for which the model is less confident like remediated control weaknesses.
- Yellow flags are lower severity and/or lower confidence. They tend to include items like early adoption of accounting policies and geographic risks.



# Usability testing & Iteration

I tested the product at different project stages.

#### Stakeholder feedback

Weekly stakeholder feedback was obtained through testing low-fi prototypes, which focused on functionality, content, and interactivity.

## Unmoderated user testing

2.

Unmoderated user testing - Participants completed hypothetical tasks using the company screening redesign.

## 3.

#### Beta testing

Prior to releasing the redesigned features, we conducted tests with selected users. They used the company screening to gather desired data and provide feedback on their experience.

## Aha moment!

Sudden user insight and discovery

## While conducting usability testing, I realized users need to compare documents provided in a timeline to improve investment performance.

After discussing with the tech lead and stakeholders, it became clear that our AI has impressive speed when it comes to processing financial data and spotting changes that may go unnoticed by humans. Designing and implementing the document comparison feature became a high priority and feasible feature as it enabled users for a quicker decision-making in the fast-paced capital market. Resulted in increased user satisfaction.

## Improvement

Document compare feature

Document compare lets users compare company reports easily to find emerging risks or opportunities. It provides color coding to show removed, added, or unchanged text.

Hudson Labs       Home       Screening       Resources ∨       sheida@bedrock-ai.com ∨         f.k.a. Bedrock AI       Home       Screening       Resources ∨       sheida@bedrock-ai.com ∨	MICROSOFT CORP (\$MSFT)	Get emails with new red flags
MICROSOFT CORP (\$MSFT)		☐+ Add to watchlist     View EDGAR filings
Back to timeline view > 2023-01-24   10-Q   Period: 2022-12-31		
View filing		
Removed Text Added Text Unchanged Text		
UNIT	ED STATES	
SECURITIES AND E	XCHANGE COMMISSION	
Washin	gton, D.C. 20549	
FC	PRM 10-Q	
QUARTERLY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIE	S EXCHANGE ACT OF 1934	
For the Quarterly Period Ended September 30, 2022 December 31, 2022		
	OR	
TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIE	ES EXCHANGE ACT OF 1934	

### User feedback

#### "

Satisfied to have great access to the high-impact information quickly to make decisions, either to invest in a company or not."

#### "

Hudson Labs provided valuable insights for improving financial decision-making through visual elements.

#### "

Besides being easy to use, the simplicity of quickly accessing ML predictions and analyses was crucial. Hudson Labs could identify pain points effectively and make the flow more efficient with fewer steps and better data visibility. "

Max-39, Investor, NYC

Nicholas-52, CEO, NYC

Sam-48, Adviser, NYC



## Seeing results

After beta testing, I refined the design to better meet user needs. The tool update was launched in November 2022, and we got excited to analyze data for smarter design decisions.

### 300% Revenue Increase



User Engagement

### Success

#### $\checkmark$

Drove a threefold revenue increase within a single quarter



Hudson Labs analysis featured in the WSJ, Bloomberg, Forbes, Financial Times, and Reuters

**\*** 

Notable new clients, including some of our personal heroes

Conferences, speaking engagements Move faster, invest better

## Highlights

Providing insight to the world's premier financial publications

#### "

## Hudson Labs solves finance Al data overload puzzle.

-Forbes - by Noah Barsky, December 11, 2023

#### "

Hudson Labs, an incredible investment research company that scours regulatory documents, pored through filings issued by hundreds of de-SPACs."

-Bloomberg, by Bailey Lipschultz, October 5, 2022

## The most significant outcome

## Trusted by asset managers with over \$600 billion in AUM

## 💥 My impact

## 1.

## 2.

Delivered design solutions within strict timelines in a dynamic, fast-paced environment.

Organized brainstorming and workshops to develop a user-friendly experience.

## 3.

Built advanced FinTech software with real-time features for investors and advisors. Supplied quick access to risk analysis using machine learning.

### 4.

Enhanced usability with clear labels and streamlined navigation for easy information retrieval.

### What I've learned

### 1.

## Simplicity is strength

As a designer, we are often lured by attractive, trendy and out of the box designs. But, We must always remember the 'why'. The primary goal is to understand the user, their problems and then come up with a design that solves it.

#### Prioritize

2

Create a strategic plan to launch an MVP. This helps deal with out-ofscope requests that could potentially derail the project and helps deliver a quality product in time. 3.

## Seek out feedback early and often

Keeping the stakeholders/users in loop and testing solutions in whatever form (paper, low-fi or hifi) as early as possible saves ample amount of time and re-work.

## More about Hudson Labs

One of the top investment research tools according to Herb Greenberg <u>read more</u>

#### Sheida Jamalian

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