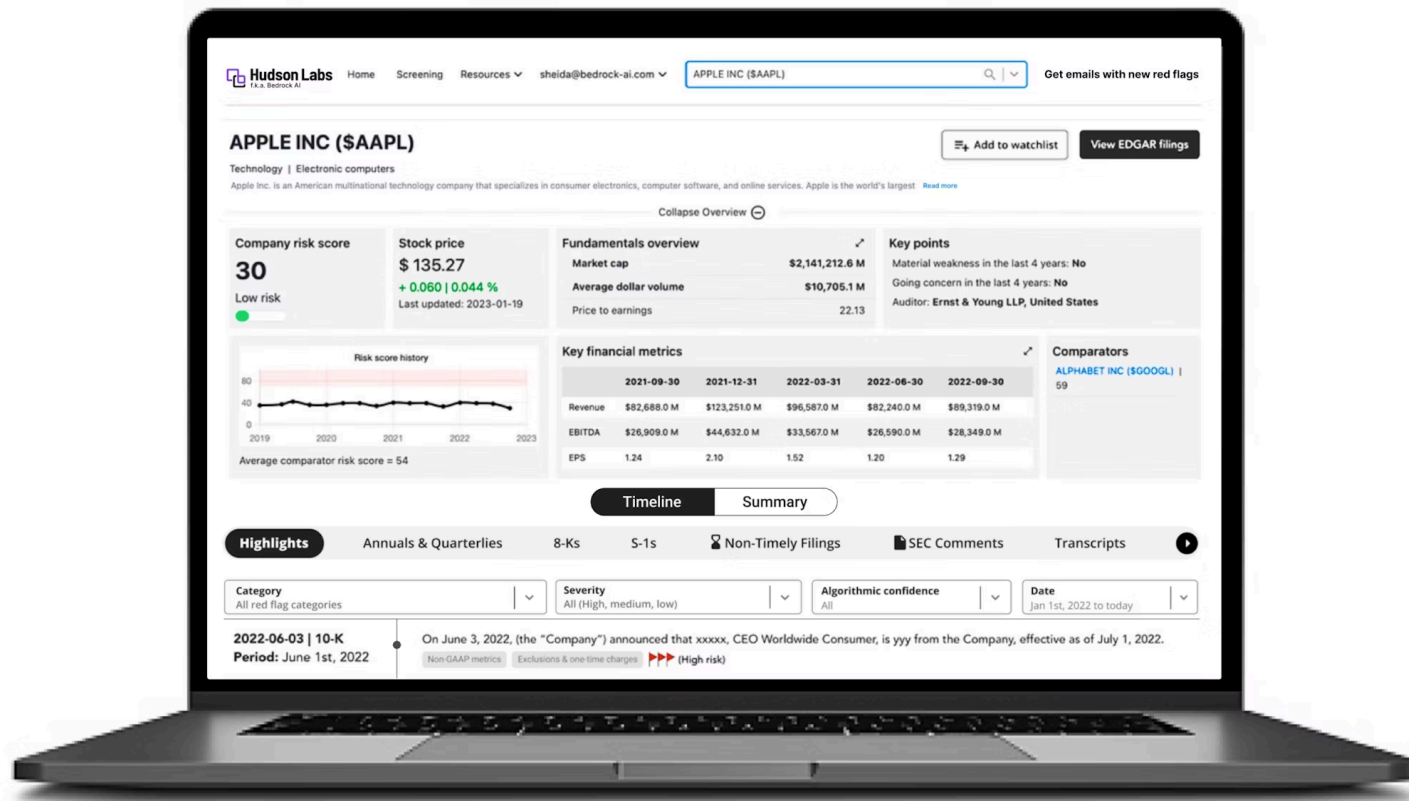# AI-generated investment tool

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

Using AI for capital markets

Husdon Labs

FinTech, SaaS, B2B

Designing AI-powered tools for real-time financial assessments improves decision-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.

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 AI-generated News Feeds.

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.

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.
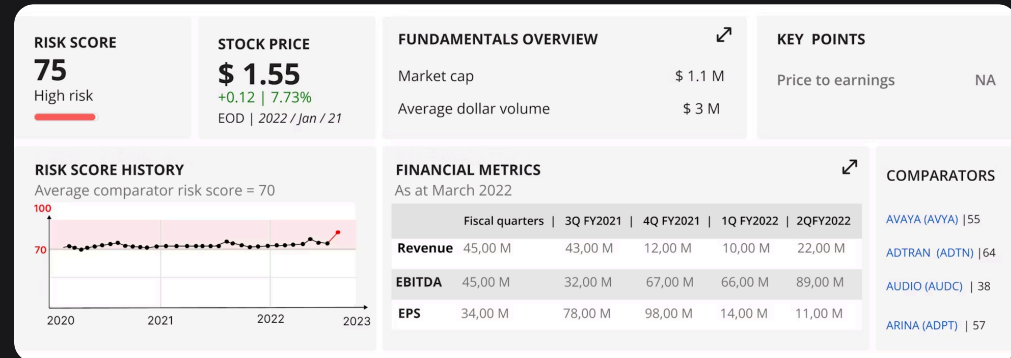
Timelines

Incorporating timelines enables users to effortlessly monitor progress and updates over time.
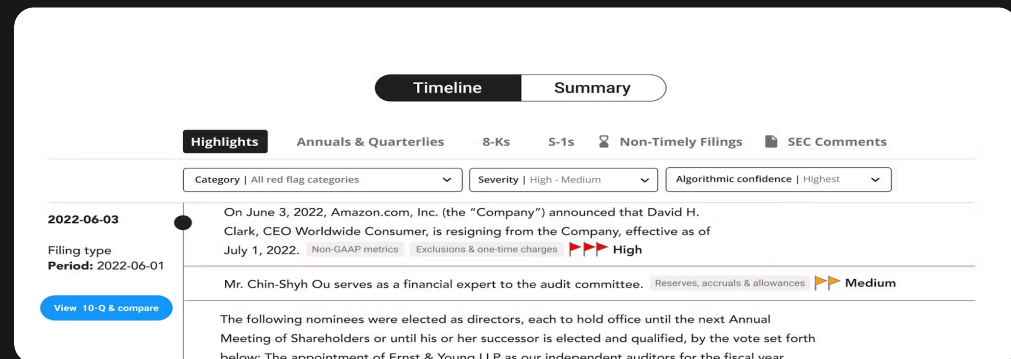
Besides being easy to use, the simplicity of quickly accessing ML analyses and predictions were crucial.

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.

🎯 Goals

- 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

🔻
Existing Pains

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 machine-learned 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

🔍 Learnings

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

👍 What went well

- 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.
- AI-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.

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 AI-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 go-ahead 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.
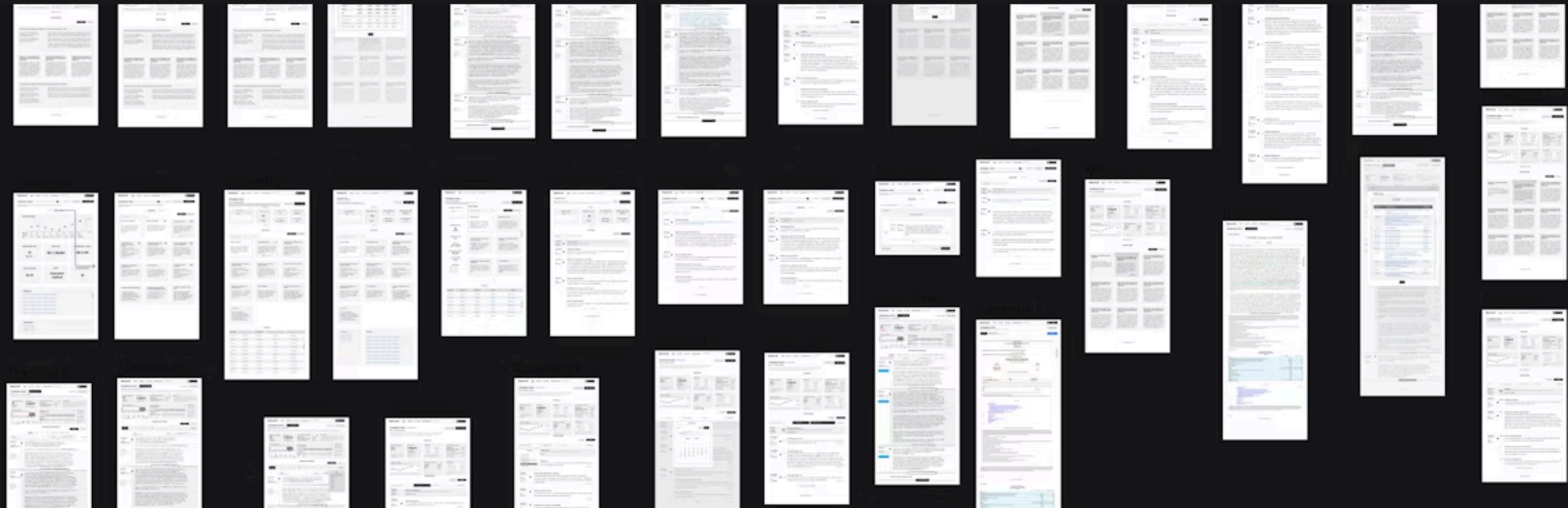
Company screening

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.

Hudson Labs
f.k.a. Bedrock AI

News   Screening   User Guide   Sheida ⌄   🔔 Get emails with new red flags   Search company 🔍

MICROSOFT CORP ($MSFT)

Email FOI reports   Add to watchlist

Technology | Services-prepackaged software
Microsoft Corporation is an American multinational technology company which produces computer software, consumer electronics, personal computers, and related services. Its best known software products are the Microsoft Windows line of operating systems, the Microsoft Office suite, and the Internet Explorer and Edge web browsers. Its flagship

RISK SCORE
75
High risk

STOCK PRICE
$ 1.55
+0.12 | 7.73%
EOD | 2022 / Jan / 21

FUNDAMENTALS OVERVIEW ↗
Market cap $ 1.1 M
Average dollar volume $ 3 M

KEY POINTS
Price to earnings   NA

RISK SCORE HISTORY
Average comparator risk score = 70

100
70
2020   2021   2022   2023

FINANCIAL METRICS ↗
As at March 2022

	4Q FY2021	3Q FY2021	2Q FY2022	1QFY2022
Revenue	45,00 M	43,00 M	12,00 M	10,00 M
EBITDA	45,00 M	32,00 M	67,00 M	66,00 M
EPS	34,00 M	78,00 M	98,00 M	14,00 M

COMPARATORS
AVAYA (AVYA) |55
ADTRAN (ADTN) |64
AUDIO (AUDC) | 38
ARINA (ADPT) | 57

Timeline   Summary

Highlights   Annuals & Quarterlies   8-Ks   S-1s   ⧗ Non-Timely Filings   📄 SEC Comments   Transcripts   ▶

Category
All red flag categories ⌄

Severity
All (High, medium, low) ⌄

Algorithmic confidence
All ⌄

Date
Jan 1st, 2022 to today ⌄

2022-06-03

Filing type
Period: June 1st, 2022

On June 3, 2022, Amazon.com, Inc. (the "Company") announced that David H. Clark, CEO Worldwide Consumer, is resigning from the Company, effective as of July 1, 2022.   Non-GAAP metrics   Exclusions & one-time charges   🚩🚩🚩

Stay informed about price movements

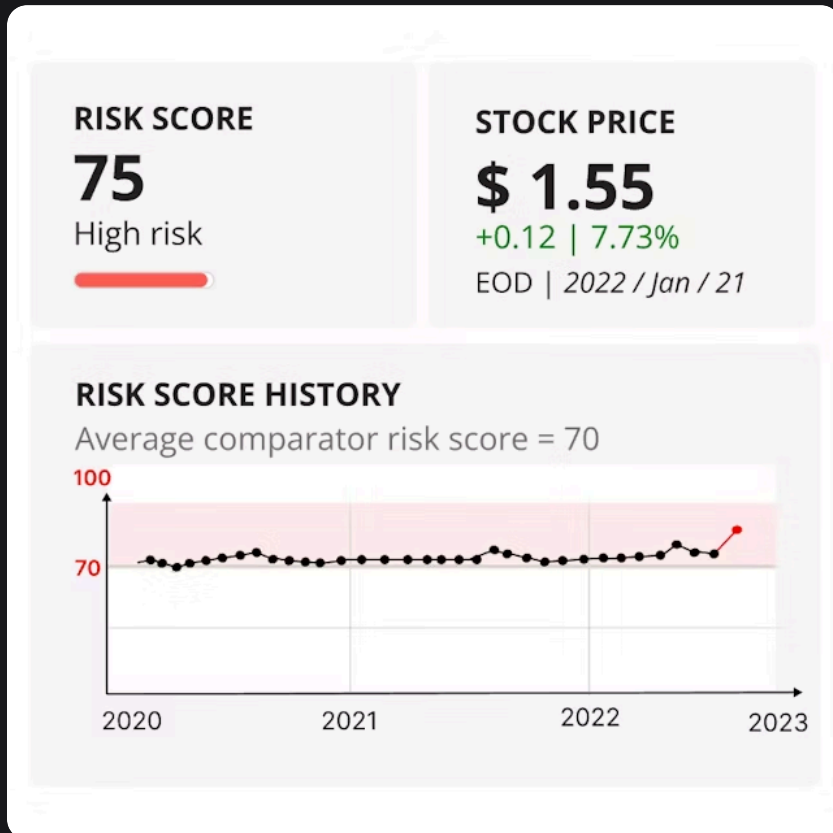## Via risk analysis features

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

RISK SCORE	STOCK PRICE
75	**$ 1.55**
High risk	+0.12 | 7.73%
	EOD | *2022 / Jan / 21*

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Make smarter decisions

RISK SCORE	STOCK PRICE
75	**$ 1.55**
High risk	+0.12 | 7.73%
	EOD | *2022 / Jan / 21*

RISK SCORE HISTORY

Average comparator risk score = 70

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 | ▶

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Mr. Chin-Shyh Ou serves as a financial expert to the audit committee. `Reserves, accruals & allowances` 🚩🚩

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

Track investment goals

Through summary view

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

| Timeline | **Summary** |

| **Highlights** | Annuals & Quarterlies | 8-Ks | S-1s | ⌛ Non-Timely Filings | 🗎 SEC Comments | Transcripts | ▶ |

Category
All red flag categories ⌄

Severity
All (High, medium, low) ⌄

Algorithmic confidence
All ⌄

Date
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

- **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.

1.

Stakeholder
feedback

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

2.

Unmoderated
user testing

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!

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

User feedback

"

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

Nicholas-52, CEO, NYC

"

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

Sam-48, Adviser, NYC

"

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

🚀 Outcomes

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

14-fold
User Engagement

Success

📈

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

Highlights

"

Hudson Labs solves finance AI 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.

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

2.

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.

2.

Prioritize

Create a strategic plan to launch an MVP. This helps deal with out-of-scope 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 hi-fi) 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>

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