

Elon Musk

@elonmusk

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This is so awesome 🤔👍

Melissa Chen

@MsMelChen

I'm cracking up so badly listening to serious WSJ journalists pronounce "DOGE" in their professional radio broadcasting voice in the context of a serious news bit and part of me cannot believe that it all started from a meme

A govt agency was memed into existence

Much wow



11:15 PM · Nov 13, 2024

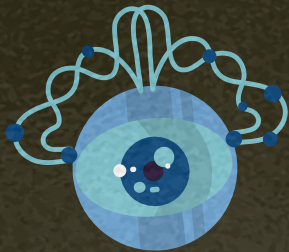
67.5K

Reply

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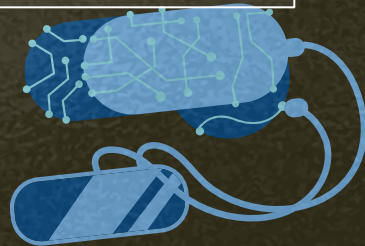
Read 3.5K replies





# But Why?

- Crypto markets move fast, but real-time public sentiment is scattered across Reddit, Twitter, and news.
- No easy way existed to pull it all together, analyze it smartly, and make it accessible.





# CRYPTO PULSE

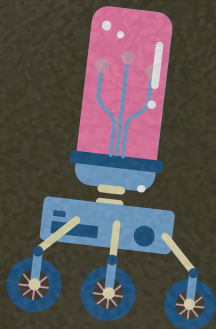
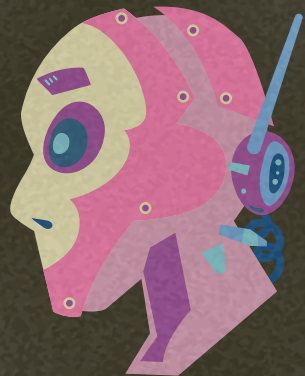
Your Crypto-Invest Mate



Crypto to the MOON! 🚀

# Our Mission:

- Fetch live crypto discussions from Reddit 🚀 (Twitter limited due to new API costs 📉)
- Analyze emotions behind the chatter using Vader and BERT AI models 🤖
- Aggregate sentiments into a single score using a custom-built Go service 🔧



- Visualize it through a sleek React.js dashboard 🎨
- Deploy seamlessly with Docker, GitHub Actions CI/CD, and Google Cloud Run ☁️



Let's go  
**LIVE!**

<https://dbm5g4posudq7.cloudfront.net/>





# BUILDING BLOCKS

## Frontend

(User dashboard to visualize sentiment and news trends)



React JS

## Stream Handler

(Fetch and store crypto-related posts and news)



## Sentiment Model

(Predicts sentiment scores for text inputs)



## Go Service

(Aggregates/Analyzes all sentiments to overall sentiment)



Google Cloud Run



GitHub Actions



GitHub



## Deployment & DevOps

(Making Things Work Smoothly!)



Firebase Authentication

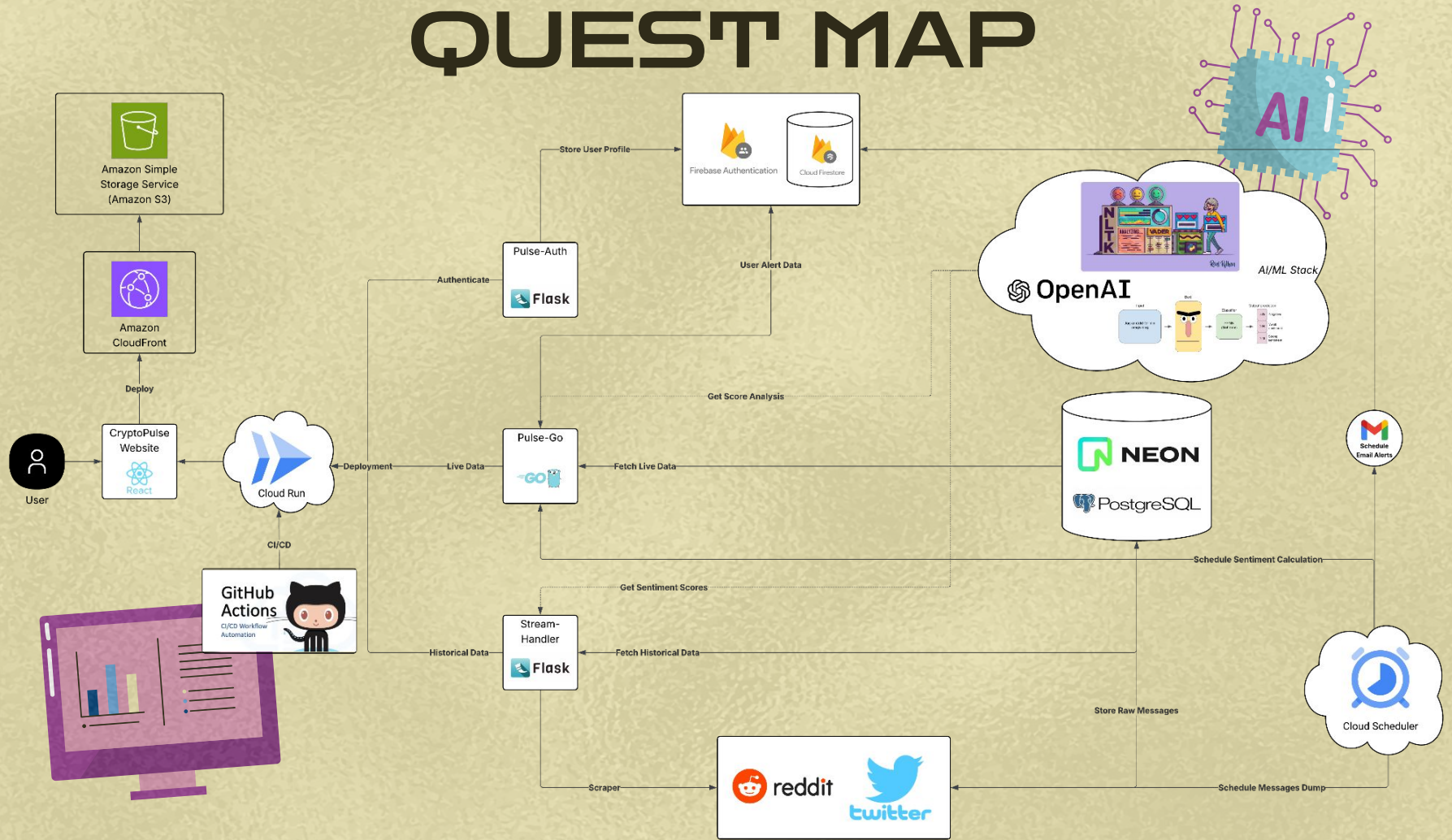


## Pulse Auth

(Handles secure user login and data)



# QUEST MAP





# The Roadblocks We Crushed



API Limits: Designed smart retry and batching strategies to fetch large data volumes efficiently.



Twitter Limitations: Shifted focus to Reddit, ensuring strong sentiment signals without extra costs.



Topic Insights:: Condensed real-time discussions to reveal the key drivers behind observed sentiment.



Historical News Analysis: Open source news dump analysis by batching on both VADER and BERT models for 170k+ points to get sentiment calculation and historical discrete data plotting.



Custom Sentiment Aggregator: Developed a custom algorithm that runs targeted search queries, aggregates fetched messages with unique logic, and calculates an overall sentiment score.



Crypto Slang: Used sentiment models tuned to social-media for better understanding crypto conversations.



Data Bursts: Optimized database writes and handled bulk inserts without downtime using connection pooling



Deployment Complexity: Streamlined multi-service tests & deployments using Docker and CI/CD pipelines.



# Next steps

## Expand

Expand sentiment analysis to multi-language support and additional news sources.

## Detect trends

Implement real-time trend detection for newly emerging coins.

## Support more

Extend support for a wider range of smaller and lesser-known cryptocurrencies.

## Add sources

Incorporate new data sources such as Telegram and Discord communities.

## Improve AI

Fine-tune AI models to better detect sarcasm, humor, and memes.

## Track regions

Introduce country-specific sentiment tracking to capture regional market trends.

# Meet the Team



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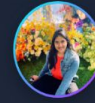
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# THANKS!



Any questions?



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