
Generating Fakenews dataset with Blockchain

—— Pham Do Minh Quang - 1902021 ——

Fake news

- Huge volume
- Easy to create
- Serious consequence to large group of people

83%

Get news from **Online (incl. social media)** in Singapore

Detection methods

Fact-checking by Experts

International Fact-checking network (IFCN)

GOOD

- Yield high accuracy

BAD

- Expensive
- Limited manpower as compare to Fake news scale

Crowdsourcing

Amazon Mechanical Turk

GOOD

- Decent result
(if instruction given)
- Affordable
- Bigger scale

BAD

- Unreliable
- Human factors
(bias, distracted)
- Spammers

Artificial Intelligence

Arguably the best Fake news
detection method

GOOD

- Fast,
- Consistent
- Diversity of background

BAD

- Lack of labeled dataset
- Require money and time to train

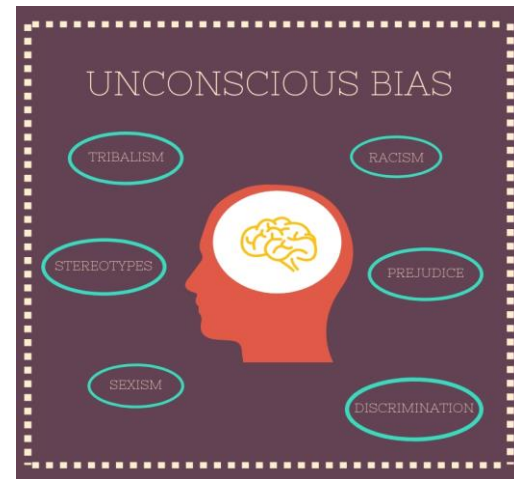
Issues of NLP dataset



Difficult to annotate



Diversity of topics



Biases

Solution

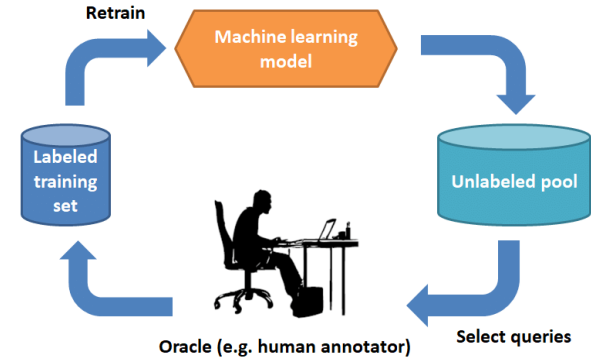
Solution aims to



Better payment system

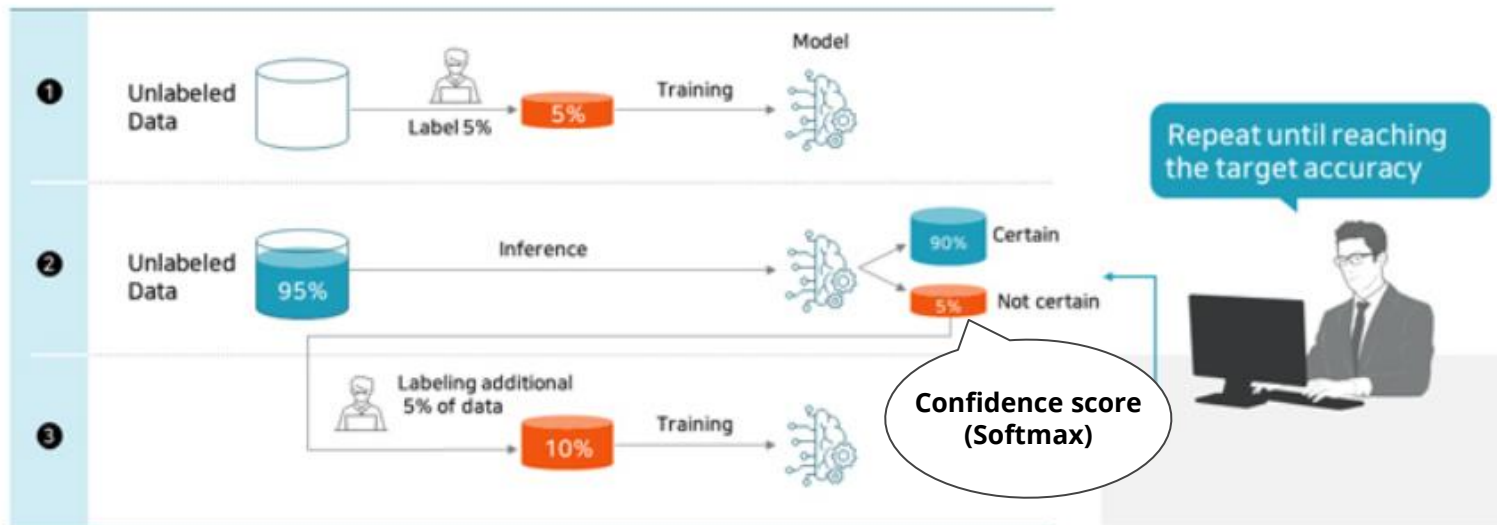


Incentivise annotators
&
prevent spammers



Select data for
annotation smartly

Active learning



Ethereum Blockchain enables crowdsourcing

NO middleman issue

- Peer to Peer

NO working day

- Automate by smart contract

Low transaction fee

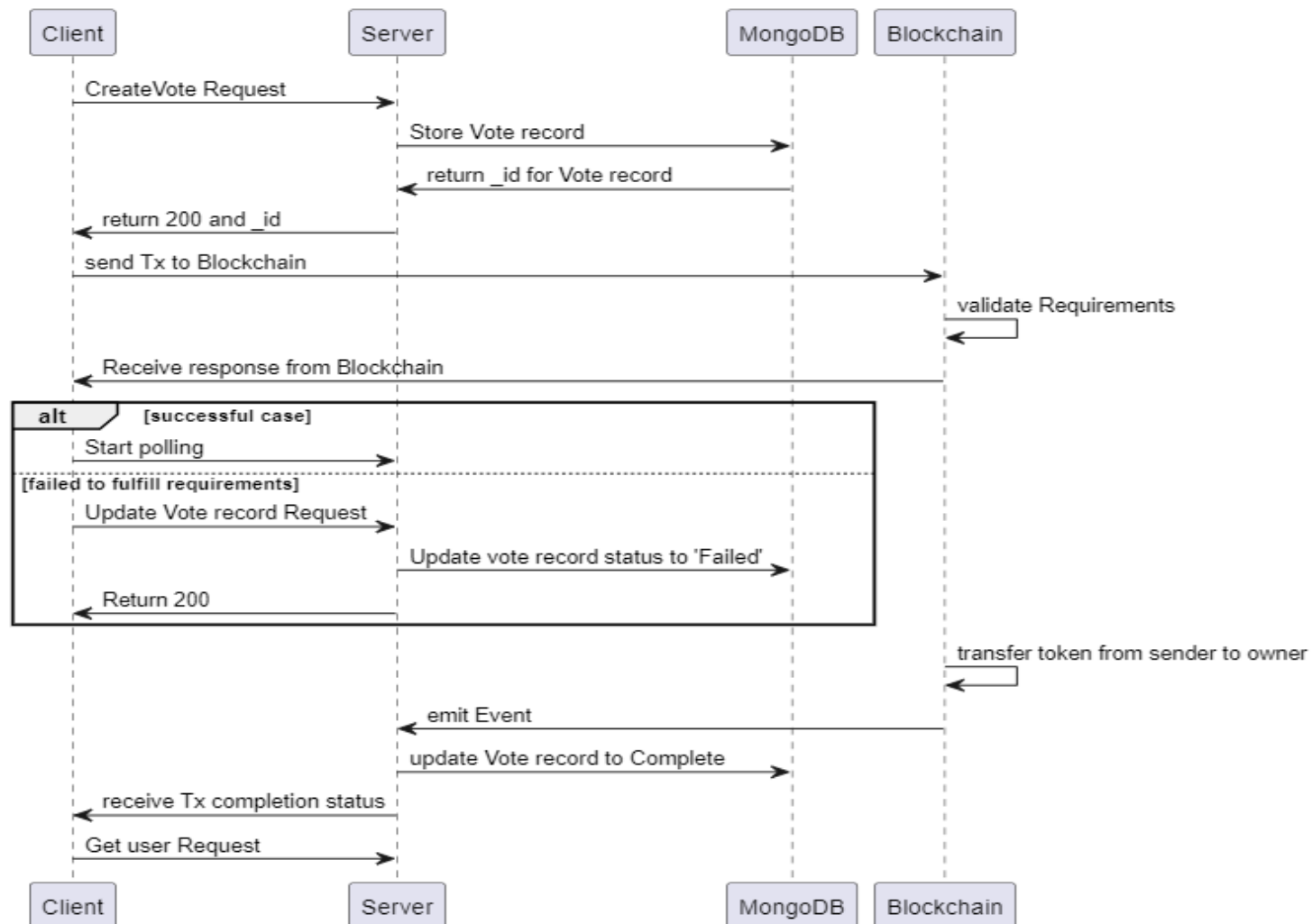
- Paypal (4.4% per transaction)
 - Ethereum (\$0.7637)
-

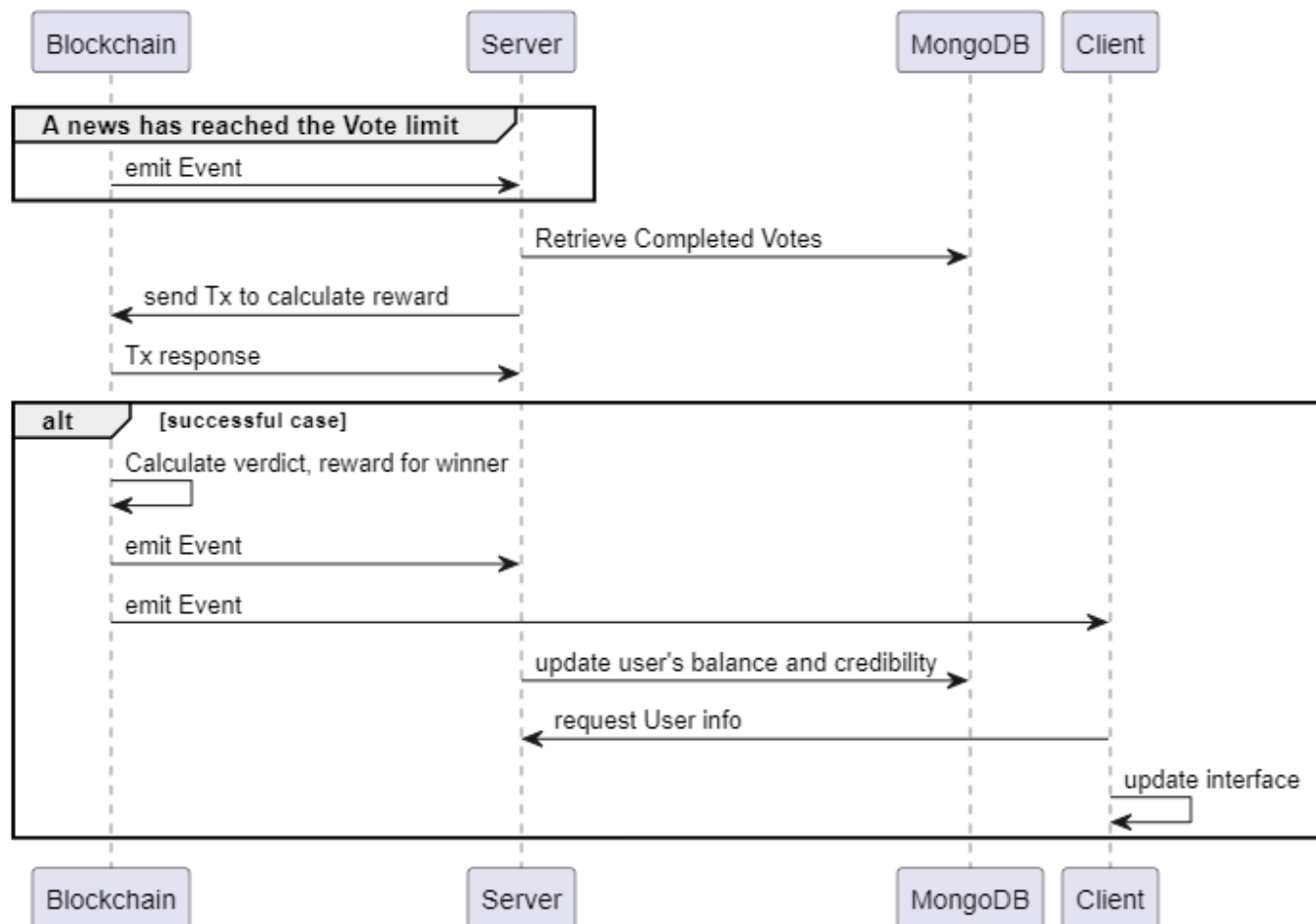
Spammer

Bots or humans randomly or semi-randomly completing tasks

	Credibility Correction	Tokens Correction
Winner calculation	$y = x + n$	$y = x + n$
Loser calculation (Exponential Decrement)	<u>$y = \text{int} (a/(3*n))$</u>	$y = x - n$
y	Result of the credibility score to be stored into '_ERC721.sol'	Result of the total number of tokens to be stored in '_ERC721.sol'
x	Current number of tokens	Current number of tokens
n	Number of tokens staked. This number determines the number of tokens to be awarded or destroyed.	Number of tokens staked. This number determines the number of tokens to be awarded or destroyed.
a	Current credibility score	NIL
b	Decay factor (Default value: 0.5)	NIL

Flow of executions
(Vote, Reward)





Demo