
CreÐApp.ai

- *The first ever decentralized AI-driven credit rating solution.*

Theme: Blockchain & AI
By: Team *Esketit*

What's a **Credit Rating Agency**?

A **CRA** is an entity that assigns credit ratings to rate an individual's ability to pay back the loan and also the likelihood of default.



The Problem:

Problem with current **Credit Rating Agencies** -

- Their credibility is widely questioned.
 - History of deceptive ratings.
 - Most importantly, it leads to **Subprime Lending** practices which caused the **Global Financial Crisis of '08**.
-

**But what is Subprime
Lending anyway?**

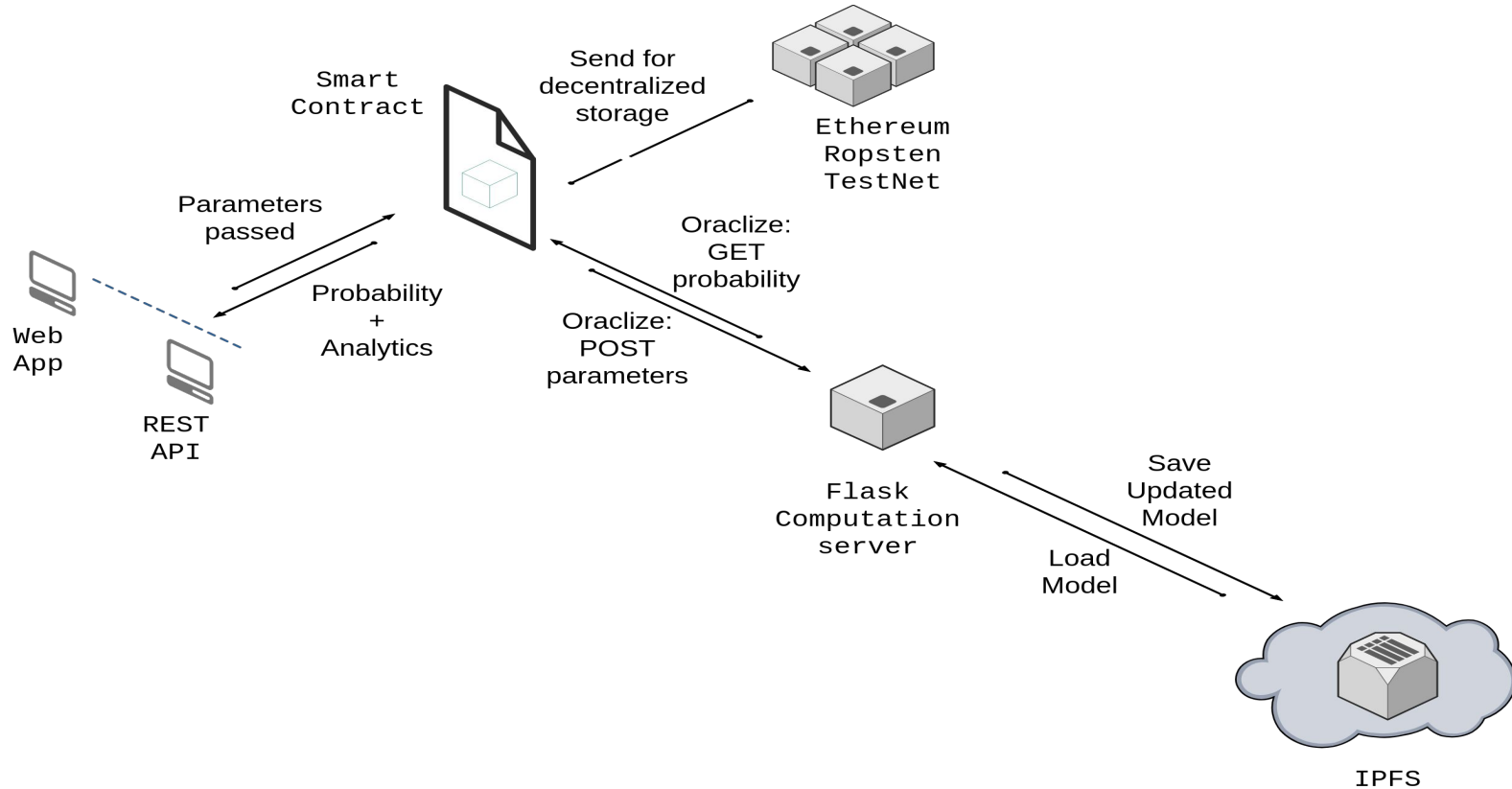
**It means granting loans to
people with bad credit scores
who can't pay it back.**

Our Solution:

“ Intelligent Contracts ”

Replacing the middlemen using automated, AI-driven, distributed and transparent ledger. We call it an *Intelligent Contract*.

How would an “Intelligent Contract” even work?

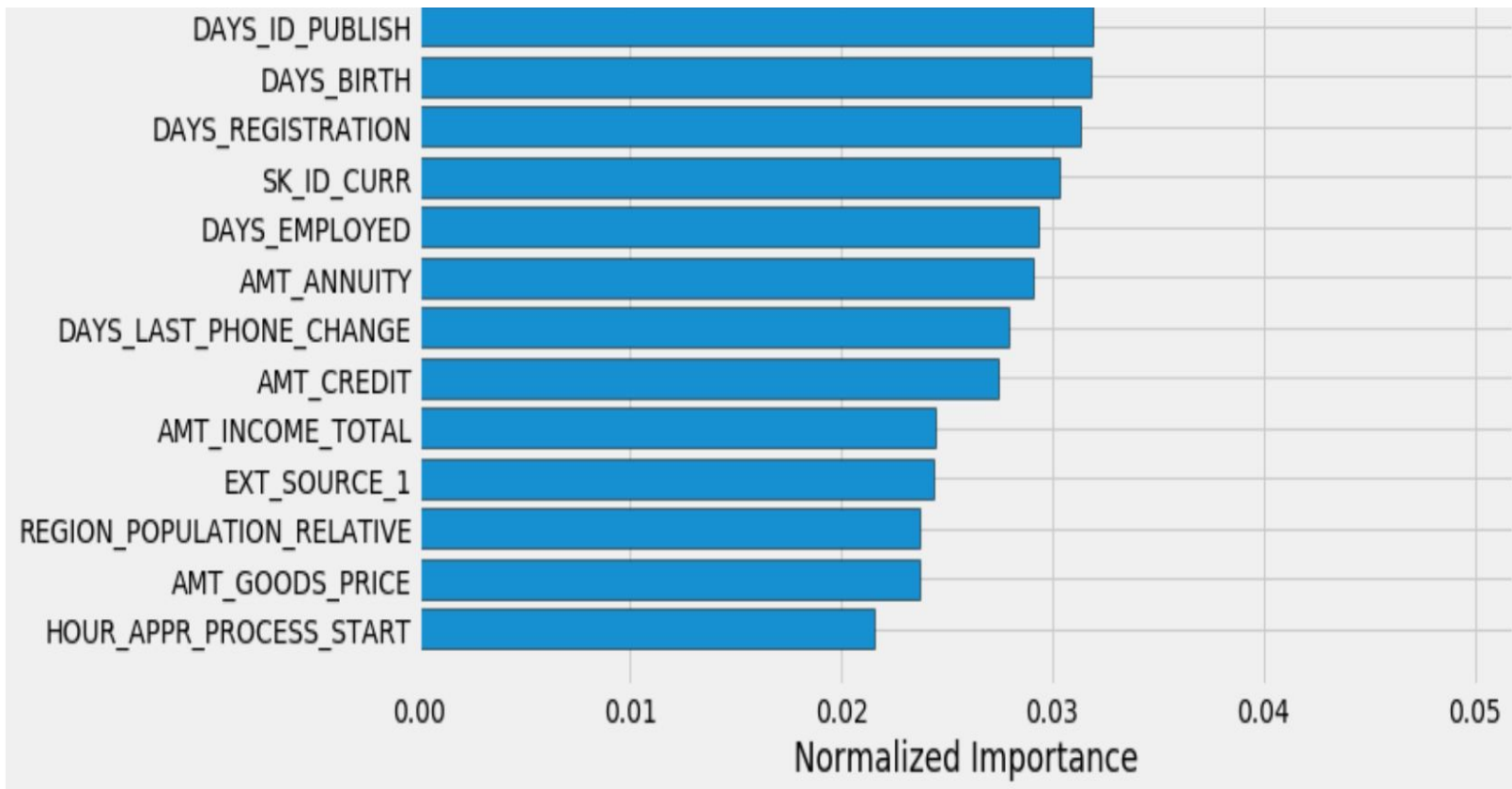


Our **AI** Model:

Gradient Boosting: We used a machine learning technique which produces a prediction model in the form of an ensemble of weak prediction models, typically decision trees.

We used Microsoft's LightGBM library to implement our model which achieved an accuracy of 78% on validation data.

Important Features:



How to use it.

Web App

User fills a form with all the necessary details on an interactive web app.

AI Model on IPFS

The user details are serialized and sent to the model to generate the risk probability.

User

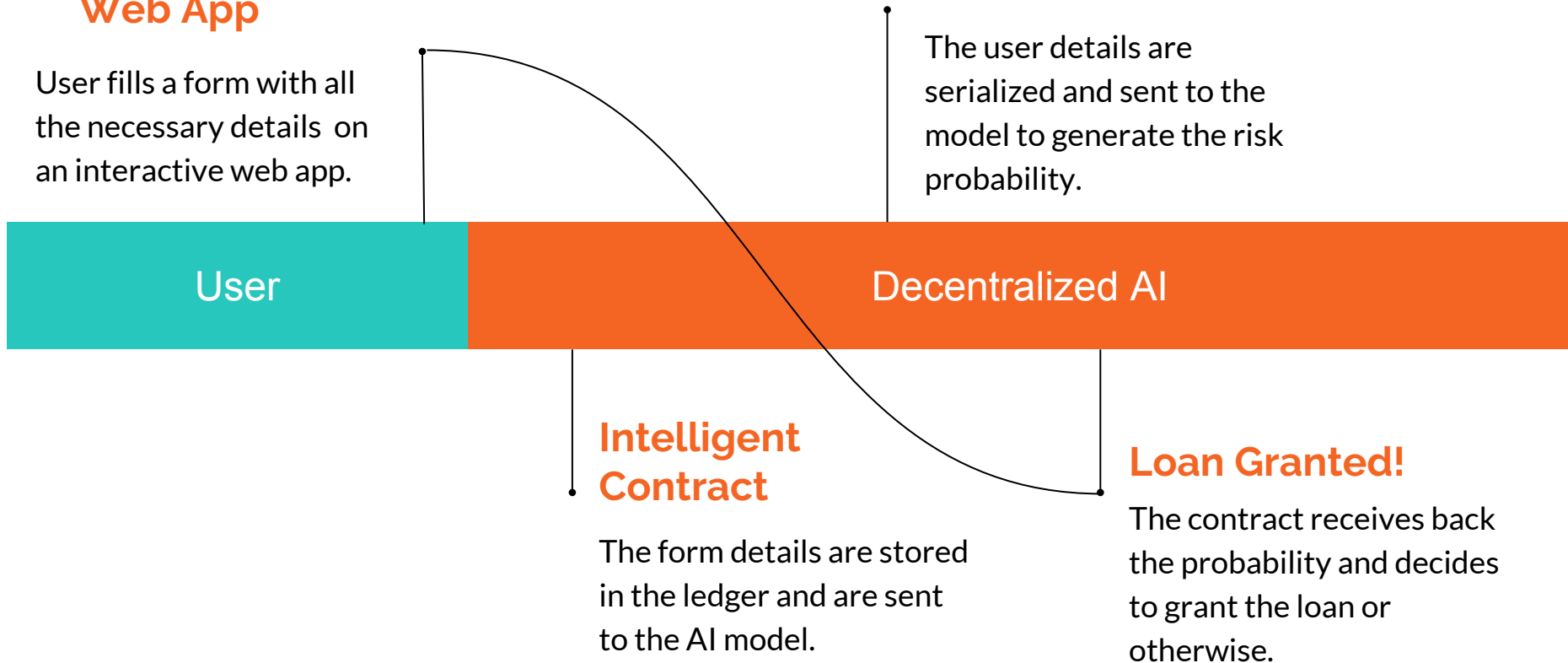
Decentralized AI

Intelligent Contract

The form details are stored in the ledger and are sent to the AI model.

Loan Granted!

The contract receives back the probability and decides to grant the loan or otherwise.



Technology Stack:

Web App:

Front End: HTML/CSS, JS, jQuery, Bootstrap.

Server-Side: Django / Flask

Artificial Intelligence:

Python, LightGBM, Keras, AWS CLI, Numpy, Pandas etc.

Blockchain:

Ethereum, Metamask, Kovan / Ropsten test net, Solidity, Truffle, Oraclize.

The stack can be subject to a little change as per requirements and situations.

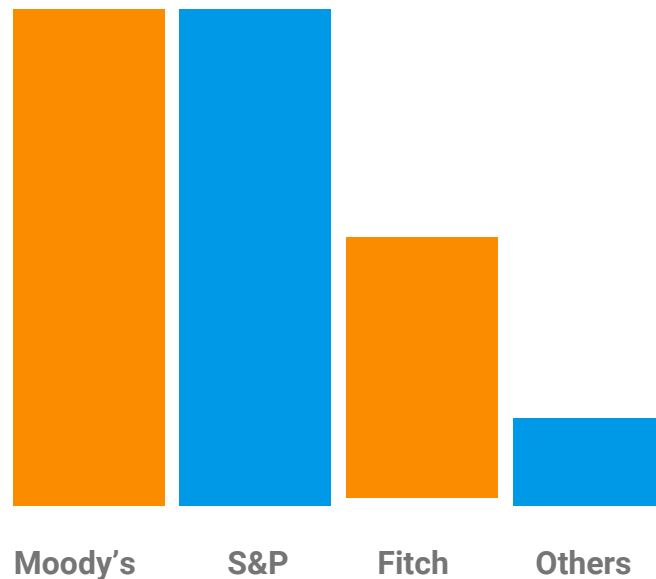
Business Model:

A **Subscription Based Model** instead of a **Issuer-Pay Model** to prevent conflict of interest between investors and issuers. This will allow us to:

- Rate securities accurately.
- Serve the customers while remaining profitable.

Current Market:

Credit rating is a highly concentrated industry, with the "Big Three" credit rating agencies with ~ 95% of the ratings business.



~ 0% of these agencies solve the problem that we are targeting.

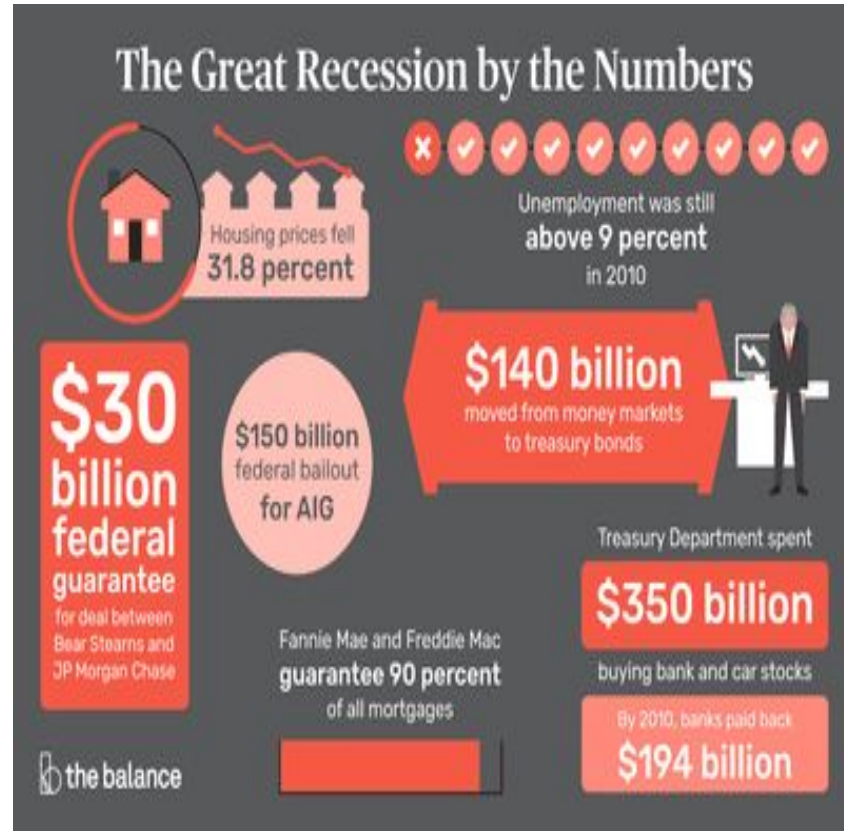
Them vs. Us

- Consciously biased ratings.
 - Untrustworthy.
 - Often gets in conflict-of-interest situations.
 - Not Credible.
- Robust AI-driven ratings.
 - Decentralized.
 - Transparent model.
 - Publicly verifiable.
 - Premium analytics services.
 - Flawless integration with banking systems.
 - Low operational costs.
-

Appendix

The Financial Crisis of '08.

Also known as the **Global Financial Crisis**, it involved collapsing of the world financial system and crashing of all the major financial institutions everywhere around the world.



The next financial crisis will be brought on by inadequate regulation, top economist says

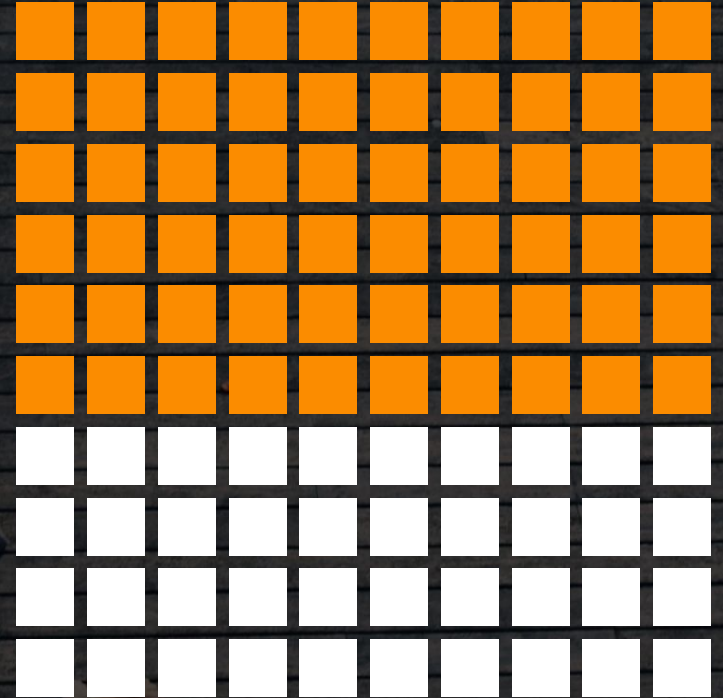
- Economists like Johns Hopkins University's Lawrence Ball have expressed alarm over the Trump administration's efforts to roll back Obama-era regulations put in place in the wake of the 2008 crash, namely the Dodd-Frank Act.
- But many banking professionals believe it's time to cast off some of Dodd-Frank's rules, arguing that allowing lenders to provide more credit would boost the economy.
- Now, with a greater debt burden than in 2008, record low interest rates and highly accommodative monetary easing, many like Ball worry there won't be enough gas in the tank if things start to break down again.

Natasha Turak | @NatashaTurak

Published 23 Hours Ago

Why now?

Because now we can
efficiently harness the
power of Blockchain
and AI.



Thank You.
