A very warm good morning to all of you

First of all we would like to take this opportunity to thank **Deloitte, TechnoUtsav team and all of you present here** for giving us such a huge platform to showcase our talents. It’s a great privilege and a proud moment to be here.

I am Vipul Sharma, I am a 3rd year computer science undergraduate student from Thapar University. I have interests in computers, movies and finance. I am also a hobbyist investment researcher.

Before we begin with the presentation, I would like to introduce you to my team members –

*[]Vibhor…..*

*[]Vikash…..*

The idea that we are going to present you, we have named it BondAI, because it is related to bonds, and it’s an artificial intelligence, based solution, therefore BondAI. We actually, got this idea from a movie **Big Short** released in 2015, its about 2007 financial crisis, and as you might already know the US economy took a big hit.

The effect was huge, global and severe. The crisis that started as a small chain of events across UK and USA, soon spread to 54 countries and just in a year time, 20 million people had already lost their jobs.

When we digged dipper into the factors leading to this crisis, some of the points that we came through were –

1. widespread failures in financial regulation
2. undisclosed conflicts of interest
3. the amplifying role of credit rating agencies
4. risky investments and
5. lack of transparency

The one thing that we are focusing in our solution is the role of credit rating agencies, especially when it comes to rating of bonds–

Often individual and small-scale investors do not have enough resources to conduct independent research on debt instruments such as bonds.

So, in order to safeguard the interests of these investors, SEC approved bond credit agencies publish bond credit ratings for US companies.

But in the wake of the financial crisis of 2007, the role of these credit rating agencies have often been criticized and questioned. There have been several accusations on the rating methodology, legitimacy and the credibility of these agencies.

In our solution we want to specifically focus on the challenges that these agencies face when rating the bonds.

Two of these challenges are –

**1. Competitive pressure to lower standards** – Since the rating agencies often work on a commission basis, they are reluctant to spend on human resource in order to squeeze out maximum profits from the credit rating business.

**2. Emotional Bias** – Often rating agencies have been viewed as aligned towards certain types of issuers and taking the advantage of which the issuers approach to the agencies aligned towards them to get better credit ratings.

Besides this, there is a third challenge that these agencies face – is errors resulting due miscalculations, lack of perception and in some cases ignorance.

In order to assist these agencies to overcome these challenges and come up with more credible and reliable credit ratings we propose the use of machine learning to develop efficient models to crunch financial numbers and then use its findings and analysis to come up with credit ratings and reports based truly on hardcore numerical analysis and data crunching.

With the recent research and developments in the field of machine learning, neural networks and cognitive automation, the machines are already on their way to be able to perform as good as human brain in terms of learning, reasoning and decision making.

And we emphasize on the need to use this modern technology by the credit rating agencies to not only come up with trustworthy credit ratings, but also use it to analyse various financial indicators to track the future prospects of the company and update the credit ratings in real time.

This innovation in the system of credit ratings will directly impact the 82 trillion-dollar bond market, which is 4 times the US GDP, 5 times the Chinese GDP and almost 40 times the Indian GDP.

It will help credit rating agencies in making more scrutinized decisions and reduce errors resulting due to miscalculations, lack of human perspective, ignorance and emotional bias.

A system like this which more of a reflect the economy than affect it, will prevent fuelling of crisis like situations by identifying early indicators of the incoming crisis. This will not only safeguard the rights of investors but, will also help in making precautionary decisions for the regulation and supervision of the crisis.

We all can agree on this, Artificial Intelligence is one of the next big things, happening around us, right as we speak. So why not leverage its power, to assist us humans to overcome the challenges we face and deliver more tangible results.

THANK YOU