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One Concern CTO Nicole Hu describes how the devastating 2014 flooding in Kashmir led her and her co-founders to focus on the problem of natural disaster response. Drawing on insights from a machine learning class at Stanford, they asked: Could they apply AI to create a real-time understanding of which buildings and people were in danger during a natural disaster? Before they knew it, their graduate school project was turning into a company.

Transcript

- Now, one fine Summer of 2014 Ahmad went back to home to Kashmir, and if- I'm not sure if you know about this, but Kashmir, India had one of the largest floods that year.. A flood which they hadn't seen in several decades.. We tried very frantically to reach out to him, we would see the news talking about how many hundreds of people ended up losing their lives, and we couldn't reach out, we couldn't connect with him, and it was very, very scary.. Ultimately, we did end up connecting with him to figure out that his family and him were safe after the flood.. However, when he came back to Stanford, he talked about so many stories related to the Kashmir flood, and it was pretty mortifying.. It was a disaster in all sense.. There was complete chaos after the disaster, you would have no sense for the emergency rescue to figure out where they should actually go, who should they actually rescue.. You had thousands of people abandoned on the rooftops for several days, and hundreds of people either drowning or being washed away by the flood.. And we wondered why is this still a problem, and why is- in the 21st century, why is nobody thinking about it? And what can we do to help? Just being graduate students here.. A little while later, we got the opportunity to work in a class project together..

It was the Machine Learning project at Stanford.. As well as the probabilistic earthquake engineering class at Stanford.. And we took that opportunity to figure out, can we actually solve that problem we saw in the Summer of 2014? And what can we do to reduce that chaos? The goal there was just, you know, let's find a way to figure out what exactly the problem was.. And the problem we tried to resolve was, can we provide a real time granular understanding of which buildings and which people are in what state of collapse during a disaster.. So, that was our problem statement.. Our backgrounds of computer science, structural engineering, and earthquake engineering led to it being focused mostly on seismic initially.. And we were very happy with the results, it was surprising 'cause it wasn't done before, but there's a lot of physics and science already there in structural and earthquake engineering.. All we did was sort of understand the features present there and really convert that in a more granular and real time solution.. We're happy with the algorithm we created, but what even more pleasantly surprised was that when we presented this algorithm in the CS229 Machine Learning Fair, a lot of professors came up to us, a lot of investors came up to us, and said that what you have is applicable, and you can create a real product here...