

Artificial Intelligence
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Lecture - 96
Wrap-up

So I think this is sort of a good point to say that you know, this was a good, this was a you know course that came together to some extent. I had also a few set of slides, just a set of slides talking about going over the all the content that we studied starting from the definition, the search, the Minimax, the Bayesian network, the neural models, the reinforcement learning. I will post those slides online. Just have a quick look at them.

They are very self-explanatory. They were just going over the curriculum. I do want to say that at IIT Delhi we have a very strong or at least a group that we are working very hard to be strong, right. Strong in terms of our research productivity. Now IIT students are very famous, but not for their research that they do in IIT Delhi. They are famous for you know starting companies and succeeding.

They are famous for doing really well in other people's companies. They are famous for doing high quality research in the US. But they are not famous for doing high quality research in IIT itself. And I always believe that you have to put the cart before the horse, right? So until the professors are trying to do good work the students will not work very hard and you know, take it to the next level.

Thankfully, at least a few of our younger faculty right have been working very hard and not just in AI side of things but also in the data science side of things. So you can check out work by Parag or you can check out work by Shreekanta, work by Sian. These are all you know, working very hard to establish significant research credibility in the field of AI in IIT Delhi and in India in general.

There is a very beautiful quote, which says that in India we have 336 PhDs in AI. In the world we have 10,000. So imagine that we are less than 2%. We have 20,000. 20,000. So in India, we have less than 2% of the AI expertise globally. That is not

very good. We are 13th in the Global Research Productivity in the field of AI, not very good. We are fifth in terms of the number of jobs in the field of AI.

So that is very good. But we do not have the professors to teach the people who can take those jobs. And of course all of you after taking my course and Parag's course and everybody's course in the department obviously will also go elsewhere to do good AI jobs and I encourage you to do it. But you should think about what it means for you to contribute back to the ecosystem here, which is trying to develop very hard.

Our Prime Minister Narendra Modi is trying to put in a lot of money in the field of AI. Their pilot project is going on in the field of AI for healthcare in rural workers, for agriculture in rural societies. Wadhvani AI is one AI research organization in Bombay, which has these pilot projects going. Various IITs are doing fun work. IIT Kharagpur has disaster management using AI.

There is machine translation occurs Indian languages, which is spearheaded by IIT Patna, IIT Bombay. There is a lot of work that is going on both for India specific problems and world level problems. So I really encourage you to take this as a starting course to get a peek inside the full curriculum, full area. Take all these courses, learn about them, do good projects.

But also think that not for everybody but for people who like some depth who like to stay into an area and you know develop it further, you know 4 or 5 years and create strong contributions there. Think about doing a PhD from here from elsewhere, you know your choice. But we are working very hard at establishing a high-quality research group in India.

Think about a career in research because AI needs it. As we discussed 364,000 jobs worldwide, but 50,000 in India. 25,000 of the 50,000 in India require a master's degree or higher in the field of AI. Why, because AI is a mathematically sophisticated field. Not the AI that we learned together, but when you get into machine learning, deep learning, optimization, this, that and the other there is a lot of math there.

And so it takes a fair amount of depth to do high quality work there and if you can contribute to that ecosystem that will be super valuable. Hope you enjoyed the course. We will stop here. Thank you.