Today was an interesting class. Although I had been exposed to the principles and methods as discussed by Shibil it was reassuring to see a man of that professional stature validate topics that I have applied as a machine learning developer.

Something that was brought up a couple times throughout the course of this lecture was the concept of replacing human-in-the-loop systems with autonomous machine learning solutions. I had asked your opinion of this move during the lecture in part because I had read a book recently entitled “Artificial Unintelligence” by Meredith Broussard (I like seeing what the opposition is thinking). In her book she brings up how well humans and computers complement each other in processes. She notes that the goal should not be to replace humans but to integrate into our processes to assist in what we’re doing. The reason being is while computers have become quite capable of assessing everyday problems they lack decision making capabilities in “edge cases” where the data density is poorer. An application she mentioned throughout the book was autonomous vehicles and how she believes the media is making us think we’re closer to that goal than we really are. A reason for this skepticism is that she doesn’t see tech companies hiring nearly enough people well versed in ethics and/or philosophy. As soon as enough people get in car accidents due to the autonomous vehicle collisions people are going to ask why the car made that decision (similar to the teacher that was fired in your example during class). She calls the people who think technology is the only thing that can save the world “technologists” and advises you be wary of the promises they make – I have yet to be convinced either way.

I’m enjoying the angle being taken in these lectures discussing biases and how statistics is not a natural instinct of humans. I’m halfway through “The Book of Why” by Judea Pearl and he brings up a plethora of examples demonstrating that exact notion. He brings up that in some cases when you are given a positive diagnosis on a condition by a medical professional you are sometimes still more likely to not have the disease than to have it (which is why he recommends always getting a second opinion on any serious diagnosis). I suppose in this instance they are just maximizing the recall to rake in as many possible true positives as possible.

Thanks for keeping things interesting,

-Oliver