* **Article**: How AI Is Using Facial Detection To Spot Rare Diseases In Children [[link](https://www.forbes.com/sites/ganeskesari/2022/03/29/how-ai-is-using-facial-detection-to-spot-rare-diseases-in-children/?sh=55a89684581c)] **(~7min)**

*Impressions*:

It almost compares the AI to a human without the ability to forget. Whilst humans struggle to learn all the different phenotypes for the rare diseases, the AI doesn’t, simply needing to be trained. It also seems to be working alongside humans, needing assistance from the geneticists to be able to confirm which disease the patient has. It seems like a great tool to aid the geneticists in their job, not only making it easier for them to find the correct diagnosis, but also potentially saving lives, as the time taken to find the diagnosis and begin giving treatment to the patient is reduced immensely as the entire genome does not need to be examined. Furthermore, it reduces the need for expensive specialists to be visited by the patients, as the app is (going to be) easily accessible for all, and therefore it shouldn’t take visiting multiple different geneticists with expertises in different diseases to find out which disease the patient has; the patient can either, use the app before visiting a geneticist, already having a general idea about what kind of disease they may have, and then have a geneticist examine them with this information, or have one geneticist do this all at once.

The app is also seen to have natural language processing abilities, meaning that if no phenotypes are visible and the condition is purely neurodegenerative, the user can type a description of the symptoms they are experiencing, and the app can analyse this and return the diseases that the symptoms may be correlated with.

They do seem to be aware that algorithmic bias is featured in the model, as poorer patients may not be able to get diagnosed with these diseases as it can be very expensive, and so poorer regions or communities are underrepresented in the dataset. A way to combat this could be to look for patients coming from underrepresented communities who may be interested in sharing their likeness to contribute to the model and advancing this technology.

They also mentioned that they created the largest crowd-sourcing in the world in order to progress from 50 rare diseases to 5000, so this is clearly an issue that many people believe is important and are willing to support.