I15  
Alright, so my name is XXX XXXXXXXXX, 47 years old and XXXXX XXXXXXX XXXX XXXX. My background is, on the one hand, I used to be a trained banker or somehow still am, I also studied philosophy, I wrote a research paper about nature, mind, and quantum mechanics as a theory of an encounter of the sciences. For about ten years I have been working almost exclusively in the IT infrastructure field, from a data center perspective. During that time, however, I also supervised many, many AI projects. Among other things, I started sizing an interference cluster for XXXXXXXX XXXXXXXXXX shortly before Covid, with the task of basically using machine learning to analyze CRT images for early tumor detection. And all of that from the technical side, meaning how do you even plan such a monster that can do something like that? That was my job, but unfortunately it was put on hold because of Covid, since the resources provided for it were of course used for pandemic response. And now I am basically Principal Cloud Architect at XXXXXX and therefore lead architect for platform solutions. And once again I already have a project where it is about language models in the clinical sector, isolated AIs. Yes, that is more or less my busyness.

A2  
Sorry, I am exposing my ignorance here. What exactly does XXXXXX do?

I15  
XXXXXX is an IT service provider in the broadest sense with a strong focus on software. So basically XXXXXX is something like a software shop that provides customized solutions for clients. My specific area, or what we launched last month, is a platform that is designed for the highly regulated sector. Especially when it comes to data protection and compliance requirements, which is also a constant process that is being enforced more and more strictly. And for that we built a platform that basically tried to unite all regulations. So you can work with the highest security standards in terms of availability, selection reliability, but of course also protection of data etc., also safeguarded against things like the Patriot Act, US applicants and so on. And this platform, basically, that is what I am managing now. And the three years before that I built something similar for another large tech company, from we have an idea to we now also have two certified clusters. Something that maybe also ties in with what you mentioned, for me a very important point is sustainability. So I make sure that in the selection of data centers they are always fundamentally 100% green energy setups. I try to achieve the highest possible performance density in the individual components to operate in a resource-saving way. And we have even managed to launch complete POCs and reference landscapes with refurbished hardware, safe and certified, in order to save rare earths.

A1  
I have to ask again at this point, when you talk about platforms, are we talking about a software platform or are we talking about a hardware platform that software runs on, or are we talking about the combination, which in the end of course is always both, but what is it that you are more focused on or is it really both?

I15  
For me the focus is primarily on hardware, but also on software, although in my case software is worked in afterwards as components to fulfill the goal. So you would probably say in my case something like full stack developer, but for a complete platform. For example, I want a software-defined data center based on VMware across two sites. So, where do I start? And that is, let’s say, the greenfield approach, that is what I can do. I then start with the selection of data centers, hardware suppliers, hardware profiles, all the way down to spare parts for network transceivers that are in the drawer in the same rack, so you can send someone to replace them. And then checking which software layers I am working with, which software providers, all the way to disaster recovery five minutes before crash via mouse click in the end scenario.

A1  
And that means, when you say you check which data center is best, should we imagine that XXXXXX rents a section of a data center, where three racks with this and that equipment are installed, they run in that data center, but it is not about building entirely new data centers, right?

I15  
Exactly, I do not do data center architecture. I know cool people who do that, who actually build, I have a greenfield and build a data center there. I do not do that. I assume the data center itself is already there, but from there I start. That usually means the first step is to build a cage in the data center, so again within the data center to have a separate isolated area, which depending on the security requirements is secured accordingly, with crawl protection and so on, where several racks are placed inside, which are then gradually equipped with the components needed for the platform to be built.

A1  
Okay, wild. Yeah, okay.

I15  
That is a rare kind of kung-fu, it is always like this, there are not many companies that can use it, but if you need it, there are not many who can do it. And when someone then asks me, you work in IT, my answer is always like, well, I work with sluice gates and you have a dripping water tap. It is both water shut-off technology, but my solution does not fit in your kitchen.

A1  
Yeah, yeah, yeah. IT in general is such a topic, right? I know that myself, you work in IT, can you set up my printer and all that stuff. Well, yeah, can you build me a website? Yeah, I could probably learn it, but I do not have the nerves for it.

I15  
Exactly, I could dig into it, but no, it is too branching.

A1  
Okay. If we now focus a little bit on the AI aspect, where do you encounter problems in your daily processes, or where do you see the biggest hurdles when it comes to this technology in your daily processes?

I15  
Split. So, on the one hand, I see a big issue in the inflationary use of AI, which somehow, I don’t know, a few years ago it was containers, before that it was, then Web 2.0, Web 3.0, before that it was cloud, now it’s AI. I feel that in many areas AI is used as a solution but not understood. I find it particularly problematic that, when I say, when I start outsourcing my thinking, so now that the discussions are happening, yes, I can also have the AI write code for me, you can do that, but if it is a platform that I am responsible for, I also have to understand that code. And it does me no good to have the AI write it if I am not able to handle it properly myself. That is also a bit, let’s say, what is often a topic in the precursors of visual programming. It is very easy to put something together with it. But the code behind it is under certain circumstances anything but optimal. That would be one scenario. What I also see is that there is a lot of demand coming from all directions, which of course in turn places incredible demands on resources, yes, for somehow high-dense computing resources and so on. Which can actually seriously destabilize even a data center. If I say, I have a cabinet here and I want to push 20 kilowatts through it, well, that’s already quite a challenge. And that would be one aspect. What I see on the other hand, which personally worries me much more in everyday life, especially since image-generating AI has become increasingly prevalent, is that, how do I describe it best, the information, whether it is meme culture or not. I always have the nice example of my father-in-law, who sends me some nonsense on WhatsApp every day, and nowadays it is often AI-generated images that are supposed to look like photos, but are perceived as photos, which leads to a complete misinterpretation of facts. In the sense of, oh, look, they do it there like this and it’s cute because, I don’t know, the little boy has a cat in his arms and the dog is running around. And that doesn’t look so bad. Why isn’t everyone like that? That does not exist. I see it, but you just don’t see it. I mean, I think, at almost 50, I am also a relative exception because, professionally, I naturally have a sharp sense for it. But I see a huge problem that AIs nowadays start, or actually not the AI itself, but the people who use it, to further dilute the pool of information on the internet, which is already diluted. If I then start coupling AI with automation. There are fully automated channels. I have a small child. I see how even actually protected areas, like YouTube Kids, which is relatively well regulated in the basics, what content comes in. But still, generic content generated by AI is just repeatedly flooded in. Yes. And that is something I have a lot of concerns about. On the other hand, I find AI totally practical when, for example, we created some contract drafts with it. I wrote a very elaborate resignation at my last employer, and I actually had the AI help me. I said, imagine a resignation from a sad, disappointed unicorn. That was actually the direction of my prompt, because my nickname is also the Unicorn. And basically it drafted the raw version, let’s say, of my resignation letter. Of course, I go over it again and would never just send it out. But I have also experienced colleagues who partially answered complete responses or supposed technical problem solutions through ChatGPT, where I just lose it, in the sense of, don’t bother me with ChatGPT because your answer doesn’t fit the scenario at all, because you don’t originally have the know-how to prompt ChatGPT properly in that moment so that I get a usable result. But the person who did it thinks, oh look, this is now valid knowledge. And I just fear that this supposed knowledge advantage is a bit like the Dunning-Kruger problem, which you are probably familiar with. And I think AI is just a complete accelerator for this intellectual half-knowledge and the resulting problems. For myself, I claim to maybe slowly crawl back up from the right edge of Dunning-Kruger, mainly because if I can’t get somewhere myself, the list of people I can ask has now become radically short compared to where I was ten years ago. And that is where I notice that AI in everyday life, or chat models in general, often annoy me a lot because it consumes time.

A1  
Those are all completely valid points, which are very, very big problems, let’s say. So of course, this whole generative AI flood, the fake news problem, and so on. These are of course huge problems. But it is something that probably only affects your everyday life to a limited extent. Or something over which you have no influence. This technology is there, people use it. You can get annoyed if colleagues send you answers that you know come one-to-one from ChatGPT and have nothing to do with your question. What we naturally ask ourselves is where we as AI researchers, especially as technicians who maybe develop these AIs and somehow make them available, can intervene to make this better. That, of course, in the end, they are still used completely for capitalism and so on. And whether people handle it properly afterwards is another matter. But the question is also a bit, what can we do? That is, we as people doing basic research in this field.

I15  
What I found really exciting, for example, I also got to know Replica-AI, this 3D pseudo web girlfriend-boyfriend thing, I actually thought it was a good approach, especially because it coincided relatively closely with the pandemic, and where I already believe that an AI can be a good conversation partner. For example, I personally plan, once I’ve made a bit more progress with my whole house project, that we want to put a customized AI in here as well. We use AI, my security system is AI-supported for things like facial recognition. So maybe a bit about the setting, I am somewhere at the end of the world on the Baltic Sea coast in a very, very small village on a very large property. The house is just about 200 years old but has a lot of fiber optic cables on the ground. And I have also supported the whole periphery, for example with a camera system, where I have to say, I think it’s fantastic to have an AI that simply helps me, basically, so that, I don’t know, if the little one runs outside or something, it just tells me, hey, your child is currently on the veranda or something. I think that’s great. And I also believe that personalized AI solutions really have a great future. And on the other hand, from a work perspective, I also notice that more and more clients have questions or needs. Yes, I would like to have an AI somewhere, but they are afraid that the AI will talk too much with others out there, in quotes. This also led to a project where, for example, a pre-trained model is implemented as a kind of night watchman in a hospital. And during the time when you have the least doctor coverage, you have an AI trained only for this specific clinic and the patients, sitting there, that can provide a nurse with the most important answers. But that is a very specific area.

A1  
So a chat service, in the end.

I15  
Basically, awesome. Yes, yes. And that’s the kind of area where I would say, that’s where it’s heading. I mean, of course, in the end, you can’t pick up a phone without having some kind of AI in it. Personally, I would wish for something like a Glados for this house. Yes, I think, depending, ask me again in ten years, then I expect my house to greet me when I approach the entrance.

A1  
Yes, the question is always, that’s a bit what has always been on the horizon and is in the sci-fi area, so personalized AIs that ultimately can mimic all human behavior. But you know from your work that, for example, AI in medicine is not like that, but rather a very specialized service for a very specific task, trained on very well-curated data. Now Chat-GPT, those are the first models where you are in the foundational area, where you say, this is really something, it is already very close to a kind of all-purpose AI, I would say, that you can just ask random questions and it has something meaningful to say about everything or sometimes not. But you are also working in many interfaces, so you speak, if I understood correctly, in your work both with developers and with companies and consult them in a way, mediating between many parties. Have you really noticed communication problems in that area or have any idea how to perhaps improve communication in these interfaces? We are talking about technical, concrete products, not the general AI vision, but very specific cases.

I15  
Just as an idea, if you have a client who says, I want an AI system that analyzes my inventory management or something. It’s a bit... AI is like the devil giving you three wishes. You have to be very specific in how you address the topic. If I say I want an AI that optimizes my inventory system and then tell it I want to save costs, the first thing the AI says is cancel the lease. Then it has somehow achieved the goal but unfortunately also just cost me my warehouse. And I think that is somehow the biggest challenge. So a lot of my work in many projects involves repeatedly following up and refining, because an AI, as I experience it, can do a lot but can also be extremely naive if it were a human.

A1  
Yes, specification is definitely the absolute key, definitely. In this context, because it’s also about specification and decision-making based on that specification, I have also methodically worked over the past few years on how we can describe properties of AIs, or certain expressions, what they do, how they do it, and especially how to make that understandable. And in this context, I would share my screen. We can talk a bit about it. And this is the screen to be shared. So. I hope you can see everything. Perfect, very good.

I15  
Exactly, a bit like Nutri-Score or...

A1  
Exactly, first describe your spontaneous reaction. What do you see, where might there be comprehension problems?

I15  
I immediately laughed when I saw the A100. But we should install them, because I think delivery times are currently too long if you get them from the manufacturer. My laptop has a Tensor card in it, which I’m using to talk with you. I like that. I really like it. The recognition value, shaped by Nutri-Score, is helpful, I would say. What surprises me a bit, or where it’s difficult for me to say, okay, this is green, green is good. What if it were red? That would be my first question. Okay, that seems good, it has a green label. But how much am I literally running into a saw laughing if it were orange or red? That would be my first question. As a label. So yes, it is green. What does it mean for me that it is green? Does it just mean it is very good? Does it just mean it handles my information well? That would be a bit for me, what makes it green?

A1  
Exactly, so one thing to mention is that if you scan the QR codes at the top, one of the QR codes will also take you deeper into the paper that presents this specific model. That means you can then engage with the theory behind the model, and the other QR code links to the software framework that can generate this label, where you can then look exactly at how it compares to other models. We can actually go there directly as well. So yes, our idea is that very hard-to-understand scientific publications or very abstract implementations can maybe be represented a bit more abstractly, meaning more understandable, without having to understand them in depth. And here, for example, you can also compare two models against each other. Can you maybe say a bit about that? What differences stand out to you?

I15  
Yes, so first, on the right I have it in milliwatts, on the left in watts. So it is already clear that we jumped a whole category in the wrong direction in terms of energy consumption. The precision is significantly better in the C-Label, but it is also easier to corrupt and has a slightly longer reaction time. That would now be like the response time, or however you call it. The question is a bit about what you are better off with. I think for something relatively low-priority I would probably take the one on the right, the A-Labeled. But the moment accuracy is key, I would then also have to accept the higher power draw.

A1  
That is actually something that is absolutely use-case dependent. We have, of course, assigned an overall scoring here. We basically made sure that we want to trade fairly between accuracy and resource consumption, aiming for the most energy-efficient solution possible. Not necessarily the most energy-saving, but the one that achieves a good trade-off. Maybe because you asked earlier, just to explain, these color ratings at the bottom in that section result from comparing around 10 to 15 models. Red is basically the worst model, green is the best model on the respective metric, and from that, you can calculate an overall score. But exactly, you can also weight the different metrics at the bottom, and depending on the use case, there are time-critical requirements, where you know you need a response time under a second or so, then the quality will generally be a bit lower. These are exactly the trades you do not understand well without a form of communication for them. Do you see a connection to your everyday work with AI?

I15  
Partly, yes. On the one hand, response times are not that relevant for me yet, but accuracy and power draw are definitely important points. And what I would also find interesting as a category, I do not know if it fits into the basic labeling or if it is a special category, is the isolatability of AIs. That would be an important criterion for me when interacting with an AI, to know how well I can actually operate it in isolation. With the idea, for example, of placing a node somewhere in my technical room, where I know, for example, the power consumption would be relatively relevant for my private area, because that is my electricity bill. But then knowing that this is an AI that handles this very, very well, if I only run it locally and do not let it communicate externally. Those would be points for me.

A1  
That is actually a very interesting point, which has not come up so far. We have this environment included, which you also noticed immediately. That means we measured it locally on XXXXXXXX on an A100 node with eight GPUs. We also measured it on other machines, even if we do not show the comparison here. These are, of course, fully isolated AIs. You can turn off the internet on the machine. The weights, the data, it is all local. And you can do things with it. I think isolation is ultimately, I would guess, but you should correct me if you see it differently, absolutely dependent on the environment.

A1  
The question is, is the environment an AWS server being rented, or an Azure server being rented, or a local machine, and that naturally also affects isolation. Then there are models that, of course, need an internet connection, but that has mostly happened recently with language models. Many models are trained once and then do not need anything else. That is then hard-coded in the weights and they are fully isolatable. You can put them on a micro-device, a phone, or a computer somewhere.

I15  
I find that very exciting, for example. I think what is a medium- to long-term use case for me, not only professionally but also privately, is exactly that. I have an isolated AI with a relatively good resource pool, either in my technical room or in the clinic basement. But then I basically have plenty of thin clients, tablets, phones, whatever, which I can use anytime to interact with my personal AI. It annoys me when my phone listens in and Google throws some garbage at me, I am curious what the next ads will look like. I like it if I can use this functionality to talk to my own AI via my phone, even when I am outside, and then say, hey AI, remind me to do this and that or whatever. So I think in this area, this, I would say, keyword co-pilot, really this co-pilot, I find such application scenarios very interesting.

A1  
At the moment, these are of course concepts that are somehow heavily sold by companies, and then of course everything is cloud-based, because of course they use your data to improve their models and products. So you’re not just paying your subscription price for this service, but you are mainly paying with your data.

I15  
If the price is free, you are the product, that’s just…

A2  
No, I can’t summarize it any better. I feel like you’ve captured very well what we are trying to do here. That’s really, really cool. It was really part of the matter. So now for me, a question arises, which we haven’t scripted, but that came up for me while listening to you. Where do you think would really be a good use for such AI labels, that you might see in your everyday life? Mainly in your workday, in whatever work you do, or in communication with others, or maybe something completely different that we haven’t talked about yet.

I15  
Well, I would, for example, find it kind of cool if we had a framework that allows you to talk to a customer who says, okay, I don’t know, maybe we are a small grassroots organization and, for example, I am XXXX XXX XXX XXXXXXXX XXXXXX XXXXXX XXXXX, so I care a lot about marine mammals and such and am very happy to support this private fleet. And I would find it cool because I know there aren’t a lot of resources on one side, but on the other hand, they are extremely ecological and environmentally conscious, logically, that’s the whole idea. And I would find it cool if you could say, okay, look, we can provide you with a Green AI. That would basically be for me, and I can show, look at this label, it has an amazing footprint regarding ecology, plus not only is the AI itself extremely efficient, but I can stack it. So I can say I have a platform that, for example, runs carbon neutral or is zero carbon committed, because I fully power my data center with hydro energy. I have refurbished hardware in use that doesn’t require rare earths and I use an AI that is also Green Label because it uses very little energy. That would be a really great approach for me to say, yes, especially for such an organization, this is also a step forward to say, look, we use AI, we’re not falling behind, but we still stay true to our principles and can advance our own idealism. I mean that very positively, that was one of my best works in philosophy studies. I can move that forward and say, here, I rely on Green AI. If I am really in a field like SOC, Security Operations Center, to be honest, the energy footprint doesn’t matter much to me. If the lawn is on fire, I need an AI that is really fast, has a lot of bandwidth, and a lot of parallelism. There, with a network AI, I can say it is resilient, hard to corrupt, and can isolate my network so I might prevent a larger impact.

A2  
I’ll try to paraphrase it so I can see if I understand or not. So in your work specifically, it would be helpful in communication with others, but for you personally, is that too superficial or exactly right? I can’t really judge that yet.

I15  
I find it exciting because it gives me the opportunity to make a relatively objective decision. For example, in the two comparisons we have here, I would probably go for the C-label because accuracy is important to me. And at the same time, I don’t have so many requests or so much AI in use that I would say, okay, even if the power draw is much higher, I would still be fine, it’s not that extreme, maybe about three times as much, okay, then I’d be willing to be a bit less ecological. But if I need an AI, for me it’s always a kind of last resort, so I need the precision behind it if I’m going to use it. If I am just having some meaningless conversations with a Replika AI, then I would be more relaxed about it.

A2  
So practically as a trade-off. In the weighing process and decision-making process, what do I use now? An AI label could help you there.

I15  
That would definitely be very helpful for me, especially if I know it brings a certain objectivity. I even tried to deal with image-generating AIs but eventually got frustrated and stopped. I tried DALL-E, Stable Diffusion, and then just yesterday evening Midjourney. Yes, all kind of cool. All usable for different cases. In the end, I wasn’t really happy with it. It was interesting, but I’m not a big online artist to spend hours on it.

A1  
A big problem with generative models is actually that the quality criterion, how good the results are, is very subjective. There are metrics derived to measure realism and such, but in NLP, we have the problem that plausible answers come out, but sometimes it’s still complete nonsense. Plausible but not correct. And similarly, how do you measure if the AI generates the correct number of fingers in images, for example. That’s a big pitfall of image-generating models. Exactly, quality criteria are extremely difficult to formulate. Methodologically and research-wise, a lot happens to better represent this. I’ll move on to the next interview section. XXXXX, thumbs up, that’s good. When you inform yourself about AI at the moment, and maybe even because we’ve already talked about specific models, which resources do you use?

I15  
Yes, so it starts, first of all just bluntly Google. And what I find very interesting, for example, is that sometimes even Bing, even though I still don’t get along with Bing, it produces too much junk for me, I find it interesting how detailed you can now make Google requests. So a relatively long prompt instead of just football results. And for that, I think my first approach would basically be to look at what I have now or what I imagine, try to break it down into three or four words, put that into Google to see if someone has already implemented it somewhere and, if so, with what. Just to maybe get some experiential knowledge. If I wouldn’t get any further with that, I would actually use my ChatGPT account to also, if I already know it, which is also nice, and I find it very convenient that I can also see, from contract drafts for our GbR to other things, where I can pick up again, and then I would say, okay, I put this into the scenario, Google only gives me junk, what do you think? And I would just see what ChatGPT itself tells me. Basically, I would confront the AI with itself in a bit of a philosophical conundrum. It’s like when I think about the world, nature also thinks about itself. That’s the approach I think I would bring in here.

A1  
When you Google or go to any, so what kind of sites does Google link to? Because Google doesn’t really give you much information, it mainly links to sites that help you move forward. Can you name any in your mind?

I15  
Yes, mainly probably tech boards, little Reddit, because the junk output there is so high. But, for example, Golem is sometimes quite useful. Gullyboards are relatively dead, but Heise is sometimes okay.

A1  
So classic blogs?

I15  
Exactly. Of course, I also have the big advantage that, work-wise, I am very well connected with almost all well-known hardware manufacturers. So I would usually just drop it to them, saying, hey, look, I have this scenario. How would you do it? And then I would, I don’t know, talk to some product manager at HP or Dell, or just ask there, or at VMware, OpenStack, Canonical, or now, for example, for an Ubuntu distribution, ask, hey, what do you have? Do you have a scenario like this and who can help me? Yes, like that. And ideally, I would actually talk to a person who maybe has done it before. If I suddenly realize that doesn’t exist, I would just put it together myself and evaluate sources to the best of my knowledge and belief. And that is exactly the point where I ultimately rely on my own healthy, more or less, common sense.

A1  
But we’re not talking about training your own models or running software yourself, right? It’s more about pre-trained models, that’s not something you’ve done yet?

I15  
No, that would be for me really providing the implementation or framework where it can be implemented, but actually enforcing it myself. Although I would find it nice to eventually set up a fresh AI myself, which I could bring in like a new family member, a digital local instance.

A1  
Of course, you would have the problem that you would first need a lot of data about your daily life to feed the AI. You would need to install microphones everywhere and collect it in advance.

I15  
Yes, and that is exactly the point where it’s already a bit much. I was at a colleague’s who has complete home automation, and I didn’t feel comfortable there. If every room reacts as soon as you walk through the door, that’s too much for me. I clearly said the only indoor area is still the veranda. Sure, the smoke and fire detectors are a bit smarter, they don’t just beep, they also talk to you. But they are inside, because it doesn’t help to have it outside. Otherwise, I would do something like that.

A1  
Yes, but if you really want an assistant to accompany you in daily life, it would need a very good representation of your whole routine. Who do you talk to about what? What is your internet traffic? What has your daily life been like the last ten years? Then you could train it on that. But before we drift too far, in the context of these labels we also discussed, what other forms exist? Labels are relatively new and still quite prototypical, but there are, for example, Model Cards from Google, also on Huggingface. That’s a large library where you can use open-source language models and image generation models, like Journey and Dolly, each with an associated Model Card containing some info. Then, of course, all the software libraries for training and using models have documentation. And of course, there are still scientific publications in the background. I don’t know if you’ve ever opened a paper. In the context of AI, there are many.

I15  
Well, when I realized, we need to go through your and your publications. That was the first, like, yeah cool, stuff.

A1  
Although of course these are not models where we now, not papers where we now present and propose concrete models. We are more on a kind of meta-level about models. But yes, exactly, that exists as well, sure. Here for example the paper on MobileNet V3, about 40 pages or so. On the right is the Model Card as it appears on Hugging Face, where you can, for example, also see, now only very small, but you can check it later, you can also see on device this and that, we have this and that Peak Memory Range and Precision and some Inference Time. Then there is Papers with Code, which is quite interesting. There you get a list of papers for all kinds of datasets and models in which they were used. Which means you get another meta-level in between and usually also directly the link to the GitHub repository to get some kind of code interface directly. On the right a blog post on MobileNet and here the Keras documentation and an IBM Factsheet, although IBM has actually patented these factsheets and does not generally release them, but rather assigns factsheets practically only to IBM products. If you compare all of this, of course everything has its pros and cons. What differences do you see there? Can you say something about this comparison?

I15  
Well, basically I would say, especially for everyday usability, that a simple label with the most important key facts is the better approach. Because everything else requires me to already bring quite a lot of information with me in order to make sense of it. But if I am told, hey look, each request costs about this much energy or is roughly this close to what you want, then that is basically enough for me in everyday life or also, if you think about it, for the average consumer. If I now have to really dive into these sheets, check, okay, how does the AI fit the curve to the collected data points and so on. How big is my fallacy then? These are things that might make sense if you are already dealing with this. But I think for an everyday user that would be far too, well, basically too dry or also too complicated. I think that the understanding of AI in general is, either people have some Skynet-like ideas, but the way things really, I would say, weight and evaluate within themselves, is not really accessible to most outsiders. So I would find a label cool, where you can quite easily get such points across to people. What I might find a bit of an issue with the label is, if I now have an AI that, let us say, speaking hypothetically, has 99.9% accuracy at 5% corrupted, but an energy footprint that is negligible, how are these four points weighted? So how long does it basically stay green and with which percentiles can I see that? Because AI-Label A does not necessarily mean that it is power-efficient or that it consumes little electricity. Efficient is another question then. So that would be for me a bit...

A1  
Exactly, I also completely agree with you on that. In my idea and the way I have kind of done it so far, there is always this overall scale, which basically results from the priorities. And by default one could say, a fair trade-off between resources and accuracy. But you can also just as well say, no, I do not care about resource consumption at all, we are safety-critical here, we want absolute robustness and absolute accuracy and resource consumption is negligible, then you just throw money at the problem.

I15  
If I could have that as a sub-label, if I say, okay, I now have for example your example with the AI-Label A and I say, okay, looks good, but the accuracy is not good enough for me, and I would then say, so what else do you have with the accuracy focus, so that I can say, I can search according to these labels, where accuracy basically sorts the top 5 accuracy, so, bam, because for me that is the one and only thing that matters. Yes, reaction speed and so on, does not matter for now. And then I basically have a relatively simple thing, a rating, I get 5 suggestions, let us say, and can then say, okay, between 99.5 and 99.4, oh well, but for only half the energy, then I can live with 0.1% less, because I think that is great, to be able to pinpoint something like that relatively easily and quickly.

A1  
Yes, absolutely. I also find that completely valid and understandable. Yes, very cool, definitely. Thank you very much for the insights at this point already. We can come back towards the end to the question of trustworthiness. Do you have thoughts on who should issue such a label? If you see such a label, would you think, well, that will be fine, there must be something behind it? Do you have, well, that is of course also a big point. And many people are at first, they also do not really trust a Nutri-Score because...

I15  
Nutri-Score also always has this thing, it is only within its own product group.

A1  
Yes exactly, but...

I15  
And Score A is like, but these are marshmallows, you want to tell me that.

A1  
Exactly, that is a bit of the problem, people of course also need to understand that somehow. But AI labeling, do you have thoughts on trustworthiness there?

I15  
I would definitely wish that this would be evaluated by an independent body. Just like we now also struggle through our certification and audits, a C5 and so on. Just like we, I don’t know, through precise image orders and so on, get that prescribed. I would find it stupid if everyone could just paint it themselves, because then you could just leave it altogether. And there really should be an objective body from somewhere, even several, where you could also maybe even say as a kind of further training concept, okay, if you yourself want to be able to carry out AI labeling, then you must have completed the following course, so that you know exactly how precisely this framework is structured, also, I don’t know, regularly updated, so that when I see such a label, I know that it was really created objectively according to these criteria. So that would definitely be important to me.

A1  
Yes, I want, on the one hand, a bit of the open source approach. As I said, the software to generate such stuff already exists. Theoretically everyone can generate labels like this. But yes, if you show that to people, of course they will also ask, okay, where does this come from? Then you can say, we made this ourselves. I found this software for it.

I15  
I have a green crayon, yes.

A1  
Yes, yes, of course. You can also just measure one model. Then everything is totally great because you don’t have bad comparison values.

I15  
That is exactly the point. I don’t even know the comparison pole, and that is why I really think it should happen somewhere centrally. Maybe quite interesting, a few years ago I took part in a podcast for three seasons, about cloud resources and so on, and there was always a segment at the end of a season, a kind of outlook. Among other things, we speculated about the Open Source Act, back then the Open Source Act of 2028, you remember. And so we turned the whole thing a bit upside down, the way it currently works, and there was, for example, also the idea that, this connects a bit with AI and data, that I think or hope that people will become more aware of their data. In the sense of, I could imagine that, for example, we are now moving toward the digital patient record and so on, with all the problems attached to it. I think I have no problem with something being digital, but I do have a problem with it being in the hands of people who cannot be trusted to handle it properly. I would find it cool if we were able to, for example, keep these data for ourselves, in our own space. So, let’s say that in the future, maybe in 10 or 15 years, with every rental apartment or whatever, there is a socket where I arrive with my family’s little data suitcase, plug it in, plop, it automatically has power replication to wherever and a connection to the outside, so that I can then say on my phone, I am with my doctor, here, wait a moment, boop, and then from my storage at home he gets the information now provided. And that then also, for example, when AI becomes more present in private areas, is connected to such a structure. That would be, yes, a kind of wishful thought of mine, let’s say, that it might go more in that direction. Because as long as there are still people walking around who say, I also have the cloud, and then show me their phone with a little cloud drawn on it, I think, yeah right. Yes, yes, of course. But cloud is not fluffy, cloud is 19-inch racks.

A1  
Yes, cool. No, so yes, we also think that especially this question of certification is a very critical one, and of course certifying authorities also always somehow manage to issue their certificates, which you can also sometimes question critically, but it would already be cool, as I said, or also a bit open source, but of course it can also then be used very much to somehow trick the system.

I15  
That is how I see it for this area, a bit like open source is fundamentally cool, but it should also still be secured to some extent. Like, let’s say, Red Hat among the Linuxes. You might also have an upstream Fedora, it is open source, but Red Hat itself, the releases are reviewed and hardened and not just random. So that I still have, it is still open source, but I have a certain resilience and reliability behind the platform and the system.

A1  
Cool, then I think we can actually even wrap up the interview with that.