## Large Hadron Collider and Mentorship

0:00  
 Alexey  
This week, we’ll talk about your career. Specifically, your transition from working as a physicist at the Large Hadron Collider to working with ML. We have a special guest today, Anastasia, who is a particle physicist turned data scientist. She has experience conducting experiments at the Large Hadron Collider and later at Blue Yonder, where she developed AI solutions for global supply chains. She also led NLP and search efforts at Kaufland, a major e-commerce chain in Germany. Anastasia is also an AI/ML mentor and is passionate about developing the next generation of data science talent in Germany. Welcome to our show, Anastasia!

1:46  
 Anastasia  
 Thank you, Alexey. And thank you to your team for preparing this podcast today. I'm really honored to be here. I’ve followed your podcast for quite a few years now, and it’s always been a pleasure to watch your discussions with guests. I’m happy to be one of them today.

2:05  
 Alexey  
 And finally, I want to join you in thanking Johanna for preparing the questions for today’s interview. So, thanks to Johanna for her help. Let’s start with your background. We’ll dive into the details of your experience later, but could you briefly outline your career path so far? I think I already touched on that in the intro, but maybe you could give us a short overview of your journey.

## Career overview and transition from physics to data science

2:35  
 Anastasia  
 Sure. You’ve already mentioned the major steps in my career. I usually describe myself as a “mover.” I’ve moved quite a lot — both personally and professionally. First, I moved from Russia to Germany, and within Germany, I’ve moved a few times as well. Professionally, I’ve also switched between multiple research experiments. The last one was at the Large Hadron Collider, which was the largest of them all. Before that, I worked on several smaller projects.  
 When I decided to transition to industry, I was fortunate enough to gain experience in different sectors, applying my knowledge in a variety of ways. This helped me grow in my career and also gave me a broader perspective. Moving into industry made me realize where my strengths lie, and it’s been fulfilling to help others who might be uncertain about making a similar transition. I’ve mentored many people and helped them gain more confidence about moving forward in their own careers.

3:59  
 Alexey  
 Which part of Russia are you from?

4:02  
 Anastasia  
 I’m from Siberia.

4:06  
 Alexey  
 Where in Siberia?

4:17  
 Anastasia  
 I’m from Novokuznetsk.

4:19  
 Alexey  
 Ah, I see. My knowledge of Siberia is limited. I’m from the Far East, so we’re kind of from opposite ends of Russia, I guess.

4:21  
 Anastasia  
 Where are you from?

4:23  
 Alexey  
 I’m from near Khabarovsk.

4:26  
 Anastasia  
 Ah, okay! When I lived in Siberia, I always wanted to go west, to places like St. Petersburg and Moscow. But I ended up moving directly to Germany. I never lived in those larger cities in Russia. I did live in Novokuznetsk for a while, which is a well-known city, especially in research, because of its research center.

5:18  
 Alexey  
 The university there is quite well-known. And where in Germany are you based now?

5:23  
 Anastasia  
 I’m currently based in Hamburg. I really love the city — it was love at first sight, so to speak.

5:30  
 Alexey  
 It’s an amazing city. I was there for three days as a tourist, but it really impressed me. It’s so different from Berlin, though.

5:36  
 Anastasia  
 Yes, it is. Hamburg has a few places that resemble Berlin, but it’s definitely its own unique vibe.

5:45  
 Alexey  
 I think I’ve been to one of those places. The buildings look similar, with a lot of graffiti and a kind of gritty feel.

5:56  
 Anastasia  
 I love Berlin too. I’d say it’s my second favorite city in Germany, after Hamburg, of course.

6:02  
 Alexey  
 Of course!  
 We looked at your profile, and Johanna did a great job with that. You have such an extensive background. But let’s start with the Large Hadron Collider. You’ve participated in very large experiments with hundreds or even thousands of people. Could you share more about that experience? What did you do there, and why were so many people needed for these experiments? Also, I’ve always wondered — what exactly does the Large Hadron Collider do?

## Working at the Large Hadron Collider

7:02  
 Anastasia  
 That’s a great question! I’ll try to keep it simple. The Large Hadron Collider is part of particle physics, which is essentially about exploring the universe. The basic idea is similar to what you did as a child when you wanted to understand something — you break it apart and see what’s inside. In particle physics, we break things down to smaller components, like protons and neutrons.  
 At the LHC, we accelerate particles to extremely high speeds and then collide them. This process allows us to observe new particles or phenomena that were not visible before. The collider uses powerful magnets to focus the beams of particles and ensure they collide with precision. We use massive detectors to capture the results of these collisions. These detectors are like giant cameras, but far more advanced. They record data that we analyze to understand the particles created in the collisions.

## How particles collide and the role of detectors

9:19  
 Alexey  
 The particles are so tiny — how do you ensure they actually collide?

9:26  
 Anastasia  
 Great question! The key is using electromagnetic laws to focus the particles with the help of strong magnets. These are some of the strongest magnets on Earth. And to measure the outcomes of these collisions, we use detectors that take thousands of pictures. In the past, these pictures were analyzed manually, but now it’s mostly automated. We collect and store massive amounts of data from these collisions — billions of events occur within minutes. Of course, many of them are not particularly interesting, but the ones that are can provide breakthrough insights.

## Data analysis challenges in particle physics and data science similarities

11:03  
 Alexey  
 Yes.

11:05  
 Anastasia  
 In particle physics, you collect vast amounts of data in a very short time. I don’t remember the exact numbers, but you gather a lot of data within a second. Of course, you need algorithms and methods to analyze it. Particle physics has always been at the forefront of data analysis, especially statistical analysis, which we now use in fields like e-commerce. We face the same problem in particle physics: dealing with large amounts of data, which we call events, and identifying the interesting ones. This is why particle physics is very similar to data science, perhaps even more so than some other fields.

However, when I transitioned to industry, I had difficulty explaining this. Many people think of particle physics as working with “funny liquids,” which is far from true.

12:09  
 Alexey  
 Right, with the cameras and particles colliding, there are billions of events. Most are not interesting, so you have to identify the significant ones and analyze them.

12:32  
 Anastasia  
 Exactly.

12:40  
 Alexey  
 I was curious — why do you need so many people for these large-scale experiments? In my previous company, there were a couple of thousand employees, with a few hundred in the IT department and only about 20-30 data scientists. But for experiments with 500 to 2,500 people, how is the work distributed? What kind of work do all these people do?

## Team structure at the Large Hadron Collider

13:32  
 Anastasia  
 If we had more resources, we would definitely hire more people because there’s always a lot of work. Not everyone working at the LHC is involved in data science. Many are focused on unique aspects of the project, such as hardware. These detectors and technologies are often one-of-a-kind, so you need specialized expertise to maintain and improve them. There’s also a lot of work related to the radiation and the conditions under which we operate.

Some teams are responsible for maintenance and operations, while others handle analysis. But there’s also service work to keep the detectors operational. You could think of it as a team effort where you need to maintain and improve the hardware and systems. The detectors are like a large camera made up of several systems with different principles that need to be aligned. It’s a huge amount of work, and that’s why you need thousands of people. Many are learning on the job, too, as students often join the project for practical experience.

16:00  
 Alexey  
 That makes sense. Just like in my previous company, where many people worked in operations, you need people to maintain the hardware. Similarly, at the LHC, the large team is responsible for hardware and operational work, in addition to analytics.

16:33  
 Anastasia  
 Sorry to interrupt, but you’re right. Typically, data analysis isn’t the only task. You also work on the next generation of detectors and their maintenance. Most physicists work across both areas — working on analysis as well as on improving the detectors. We even have theoreticians who, while not officially part of the collaboration, think about new theories. As for data analysis, there are various ways to approach the same data because there are many theories trying to explain what we don’t yet understand. You need a dedicated team to understand both the theory and how the detector works.

17:37  
 Alexey  
 So, what about the idea that the Large Hadron Collider could create a black hole and destroy the universe?

17:46  
 Anastasia  
 That’s a misunderstanding. There’s a theory suggesting that it could create black holes, but they would be very tiny and disappear almost immediately. The reason for building the LHC was, on one hand, to look for the Higgs boson, which you may have heard about — it was discovered about 10 years ago. The second reason was to investigate dark matter and dark energy, substances we don’t fully understand. While we have evidence of their existence, we don’t know what they are. We hoped that the LHC’s energy would be sufficient to create particles that could help us understand dark matter, but so far, that hasn’t happened.

Although the scale of the project is enormous and expensive, it provides a unique laboratory for such experiments. There’s an ongoing debate about whether it’s worth continuing to invest in experiments like these. There are other colliders in the world, including one in Germany near Darmstadt, where you can visit the construction site. About 500 people are working there, but it’s not exactly the same as the LHC — it’s another experiment focused on particle acceleration.

19:34  
 Alexey  
 I visited a planetarium in Germany about a year ago, where they discussed dark matter. They also showed a map of various Hadron colliders around the world, and I was curious about how they connected dark matter to the LHC. Now it makes more sense.

## Explaining the connection between particle physics and data science

20:05  
 Anastasia  
 Yes, you essentially can. You build a theory to explain something, and then you try to prove it with experiments in the lab. These are controlled experiments to some degree. It’s not fully controlled, but it's the best way to manage it with the tools we have available.

20:27  
 Alexey  
 One of the things you mentioned is that particle physics is much closer to data science than most people imagine. But you also faced challenges explaining this, because the common image of a scientist is someone working with liquids and complex machinery. How did you convince people that what you were doing was data science? How did you explain that you were following best software engineering practices to avoid creating chaos and potentially destroying the universe?

21:04  
 Anastasia  
 It took me some time to realize I needed to explain this. When you're in a specific field, you don’t realize that others have no idea how it works. You're surrounded by people who understand it, and it doesn't occur to you that you need to explain it clearly to outsiders. Most of the time, when I discussed my work, the conversation was about what we were doing and why we needed so many people. But when I entered the job market, I had to adjust my story. I realized that I had to understand what companies were looking for and how to connect my experience to that. This was a difficult lesson to learn.

One of the key aspects of my work was software development. To handle large projects, you need a lot of software. I was fortunate to be exposed to the best software practices early on because that’s the only way to manage such large-scale projects with thousands of people involved. It wasn’t a monolithic structure, but there were large, complex systems for data collection, storage, and processing. When I moved to industry, I realized that many of the tools we used, like version control, CI/CD, and GitHub, were the same practices used in the tech world. This was something I didn’t fully understand at first, but when I started applying it in industry, I saw how these practices helped us manage large systems and avoid errors.

## Software engineering practices in particle physics

23:21  
 Alexey  
 You already knew about GitHub and CI/CD, right?

23:29  
 Anastasia  
 Yes, although I didn’t always know the terminology. I understood the concepts, but the terms like version control and CI/CD were new to me. I remember the debates we had at the LHC about whether to adopt a version control system. People were resistant at first, but once we implemented it, I saw how much easier it made our work. It saved us a lot of headaches, and it was implemented during my final years there.

24:31  
 Alexey  
 So, you understood the concepts, even if you didn't know the terms at first. I imagine you also had to learn the language of data science when transitioning into that field, right?

25:11  
 Anastasia  
 Absolutely. I had to translate the language of physics into a more accessible form. In physics, machine learning concepts were often referred to as multivariate analysis. But when I mentioned this term, no one understood what I was talking about. The language barrier was something I had to overcome, and it was tricky at first.

25:52  
 Alexey  
 I can imagine that you must have had a hard time in interviews. You’d explain your work on dark matter, the Higgs boson, and particle collisions, and while it’s impressive, people might have wondered, "What does this have to do with our work?"

## Challenges during interviews for data science roles

26:11  
 Anastasia  
 Yes, absolutely. I failed a couple of interviews. I didn’t realize how serious it was, and that these weren’t just casual conversations — they were about specific jobs in particular companies, where they were looking for particular experience. At the time, data science was not as widely understood, and there weren’t many candidates, so companies were hiring without fully understanding the field themselves. Many of the interviews I had were for roles where I would have been the first data scientist at the company, and they weren’t sure what they needed. I was lucky to be in a market where data science was just emerging, but I didn’t fully understand what was expected of me.

27:29  
 Alexey  
 So you had offers to join companies as the only data scientist, but you decided not to accept them?

27:36  
 Anastasia  
 No, I didn’t have offers. I was invited to interviews, but they quickly realized I didn’t have the exact skills they were looking for. I wasn’t selected in the end.

27:53  
 Alexey  
 Then you joined Blue Yonder, which is a software vendor for the supply chain industry. What did they do?

28:00  
 Anastasia  
 Yes, Blue Yonder is a software vendor for supply chain solutions. It started as a small startup in Germany, founded by a physics professor. Even though there aren’t many physicists there anymore, they still understand the work I did. This helped a lot because they had the business understanding and also the technical knowledge. Before I joined, the company was acquired by a large US software vendor, and the company was so impressed by the work Blue Yonder had done that they decided to rebrand themselves under the Blue Yonder name. It was a great place to work, and looking back, I’m glad I ended up there.

29:18  
 Alexey  
 You're not at Blue Yonder anymore, right?

29:19  
 Anastasia  
 No, I left over a year ago.

29:23  
 Alexey  
 What are you doing now?

29:25  
 Anastasia  
 Right now, I’m focused mainly on mentoring.

## Mentoring and offering advice to job seekers

29:30  
 Alexey  
 That’s great! Tell us more about your mentoring work. I see there's a related question that might connect with what you’re doing now. Someone asked how to convince German companies in this field, as they’ve had multiple interviews but keep getting rejected without feedback. What advice would you give?

29:53  
 Anastasia  
 It’s a common challenge. A lot of German companies don’t provide feedback when they reject candidates, which can make it difficult for job seekers to improve. In cases like this, I’d recommend focusing on understanding the specific skills each company is looking for and tailoring your story to show how your background fits those needs. It’s also helpful to seek out mentors or industry professionals who can provide guidance.

30:45  
 Anastasia  
 That's a great question. In general, people in Germany and Europe tend to be very cautious when giving feedback because they're afraid you might sue them, which is not very typical. In many cases, people assume they could go to court if they are unhappy with something. Still, it's rare to receive direct feedback. The best approach is to build a good relationship with the hiring manager. You can ask them for a quick call and honestly inquire about areas where you could improve. If you've gone through multiple interview stages, they may be able to give you specific feedback.

Often, the reason for not being selected has nothing to do with the candidate but rather that another person is considered a better fit. It’s more about the team composition rather than the individual candidate. So, my advice is to reach out to the person you’ve been in contact with and ask for a short follow-up. However, don’t expect too much — sometimes a company might decide to promote someone internally or even stop the hiring process altogether. Unfortunately, it's common to get a standard rejection without much detail.

32:36  
 Alexey  
 I remember from my experience working at multiple companies, some of which were German, that when you don’t get feedback, it might be because of a cultural fit issue. Companies often avoid giving specific reasons for rejecting a candidate, especially when it comes to cultural fit. This is a tricky topic, as discussing it could lead to legal complications. To stay on the safe side, companies tend to avoid directly mentioning it and instead just say, "Sorry, it didn’t work out." This often happens even in one-on-one conversations, and HR is reluctant to delve into it.

33:41  
 Anastasia  
 Yes, when it comes to cultural fit, it’s a very sensitive issue. Companies will never phrase it directly that way. Instead, they focus on hard skills and avoid mentioning behavioral or cultural fit.

33:57  
 Alexey  
 Right, like if you didn’t pass a coding challenge, that’s a more objective reason.

34:03  
 Anastasia  
 Exactly. It can also help to discuss your interview experience with someone else who wasn’t involved. Often, just talking through the interview with a mentor or friend can reveal which part of the interview went wrong. I do this with my mentees — a post-interview feedback session where we analyze how things went. Even if the candidate’s answers were technically fine, there might have been hesitation or uncertainty in delivery that affected the outcome.

This kind of feedback is valuable, not just in mock sessions for preparation, but also afterward. It’s helpful to talk to someone with experience in the field who can give you insight into whether your behavior was acceptable or not. As for transitions in career, you don’t always realize that things are done differently in different countries, industries, or companies. Having someone close to the process can be very helpful.

Regarding the behavioral part of interviews, many candidates underestimate it. It’s often the most important aspect, not just whether you solved the coding challenge. How you present yourself, how you react to specific situations — those are key. If you’re not prepared for this part of the interview, you might not pass.

35:54  
 Alexey  
 This is especially true for people from Eastern Europe. In places like Russia, there’s often a stronger focus on hard skills. For instance, I thought if I knew Java well, I’d definitely get hired, but then companies started asking me questions like, “Tell us about a time when you helped a colleague.” That kind of thing was unexpected for me.

36:31  
 Anastasia  
 It’s true. But I wouldn’t say this is exclusive to Western Europe. I work with people from all over the world, and I see similar experiences.

36:44  
 Alexey  
 Yes, because in university, we mostly focus on solving math and programming problems. At least, that was my experience studying computer science — we put too much emphasis on hard skills and overlook teamwork and soft skills.

37:06  
 Anastasia  
 Absolutely, I agree. But I think it's similar in German universities too. The problem is that when you’re at the start of your career, you often don’t realize the importance of soft skills. I can say this from my own experience as well. Soft skills are actually the most important to move forward in your career. It doesn’t matter how good you are at Java or Python if you can’t collaborate with a team and resolve issues that come up.

37:47  
 Alexey  
 Mhm. What would you suggest as a good way to prepare for this?

37:53  
 Anastasia  
 First of all, be aware that the behavioral part of an interview is just as important as the technical part. Don’t underestimate it. It requires specific preparation. What usually helps is reviewing common questions — you can easily find lists online or ask ChatGPT to help you generate some questions. Practice answering them, and prepare a few stories you can tell. You don’t need to come up with creative stories for every question, just a few solid ones that highlight your skills and experiences.

Once you’ve prepared these stories, you don’t need to reinvent the wheel every time. You can refresh your memory by reviewing your notes before interviews. Also, think about which soft skills the company would value most — whether it’s teamwork, proactivity, or being supportive.

39:08  
 Alexey  
 That’s great advice. For me personally, what helped was looking up Amazon’s leadership principles and practicing interview questions based on them. Amazon has a very clear set of leadership principles, and they use these to assess if someone fits into their culture. Many other companies, especially in tech and e-commerce, have similar frameworks. Looking up questions related to these principles helped me prepare for interviews at other companies as well. There’s also a book called *"Groin in Rio"* (or something similar).

39:53  
 Anastasia  
 I’ve never heard of it.

39:58  
 Alexey  
 I don’t remember the exact title, but it was a good resource.

## The STAR method and its value in interviews

40:03  
 Anastasia  
 I think it was around seven years ago.

40:08  
 Alexey  
 The interview. Yeah, so there’s a clock on the cover of *Cracking the Coding Interview*. There's a chapter on behavioral interviews that gives you a framework — a table where you can organize your stories. They also suggest using the STAR format to answer questions.

40:33  
 Anastasia  
 The STAR format is actually quite controversial. Many people say you can't frame your technical experience using STAR, but I disagree. I think having a framework is better than nothing, and it helps structure your thoughts. It’s especially useful when you’re answering a question you're not prepared for, which happens quite often. Knowing how to structure your response is valuable. The STAR method stands for Situation, Task, Action, and Result. Mentally, you move through each of these steps, and it’s really helpful. Even if you’ve never told a particular story before, structuring it well makes it understandable. It’s a fantastic approach because it helps the listener follow your thought process clearly. STAR is probably the most well-known framework, but there are others too.

41:26  
 Alexey  
 And you mentioned that you’re currently focused on mentoring, right? How did you decide to focus on mentoring? It must have been a difficult decision to switch from working to focusing completely on this, right? I know that feeling — when I was working and doing DataTalks.Club, I eventually decided to focus fully on the podcast, which felt like a leap of faith. It’s scary, right? How did it happen for you?

42:05  
 Anastasia  
 To be fair, it wasn’t like I imagined myself becoming a mentor for the rest of my life. It just felt like the right moment. Several factors came together, pushing me in this direction. I was happy to pursue it, especially since my last job didn’t work out, and mentoring gave me a sense of purpose. It also helped me align with something that fit me better. However, it’s a hard job. I really enjoy mentoring and believe I’m good at it. Many people I’ve worked with are happy, and we’ve worked together for months. But it’s a tough role. On one hand, you work with highly motivated and talented people, which, as a leader, is an ideal situation. Every leader dreams of working with people who are eager to grow and follow your guidance. But on the other hand, they are constantly challenging themselves and you. You always feel the pressure to do more, think deeper, and prepare better. It’s a continuous learning process. In our field, it’s common to constantly stretch yourself, which can be stressful. As a mentor, you need to find a balance and recognize when you’ve learned enough to help others effectively without burning yourself out.

44:07  
 Alexey  
 How did you start mentoring?

44:10  
 Anastasia  
 It happened somewhat by accident. After moving into the industry, a few people approached me and asked for help because they were struggling. I remembered my own struggles, so I was happy to help. Over time, when people at my company, Blue Yonder, formally asked if I could be their mentor, I realized there was a term for this. I started thinking about it more seriously. And then, when I tried to find a mentor myself, I noticed that being advanced in your career doesn’t automatically make someone a good mentor. A mentor has to actively want to help, and not everyone is suited for the role, even if they agree to it. This made me reflect on what mentoring actually is and how it should work.

45:11  
 Alexey  
 So, what is mentoring?

45:13  
 Anastasia  
 Good question. Mentoring is about making other people's lives easier. It’s about helping them achieve their goals by sharing knowledge and experience.

45:20  
 Alexey  
 It seems like mentoring is a process. It’s not just meeting for a quick coffee, right? It’s a more ongoing, regular commitment.

45:42  
 Anastasia  
 Exactly. While it’s possible to meet someone just once to help with a particular question, I wouldn’t call that mentoring. Mentoring usually involves a process, and the mentor needs to understand the goal of that process. The goal could be finding a job, getting a promotion, transitioning from academia to industry, or even moving to a new country. Knowing the goal helps you find the right mentor. For example, if you want to find a job in Germany but have never worked there before, you need a mentor who knows the German job market and can guide you through it. Mentoring involves sharing your knowledge, but you also need to stay updated, especially if you’re mentoring someone in a different context from your own experience. It’s important to keep learning, stay strategic, and constantly reflect on your motivations as a mentor. Coming from physics, I think time and energy are the most valuable resources in life. As a mentor, I aim to save others time and energy by guiding them toward their goals.

47:53  
 Alexey  
 You mentioned earlier that you didn’t initially decide to become a mentor, but people asked you for mentorship. Was it a similar process for you in the beginning?

48:19  
 Anastasia  
 Yes, exactly. I’ve always been curious and have spent a lot of my free time learning — taking courses, reading books, and attending events. I accumulated a lot of knowledge but couldn’t use it at my job, especially at Blue Yonder, where the data science use cases were limited. Mentoring became a way for me to share this knowledge and connect with others. I also found some mentors in areas I wasn’t familiar with, like computer vision, where I’m learning alongside them. It’s a way to explore new fields together.

49:25  
 Alexey  
 Let’s say I have a problem, like I want to find a job or get a promotion. I come across someone who has already made a similar transition — maybe from Russia to Germany, or from academia to industry — and I reach out to ask for help. How can I make it interesting for that person to respond? Sometimes I get random requests on LinkedIn, like “Hey, be my mentor,” without any context, and it’s hard to see why I should respond to such a vague request.

## Paid vs unpaid mentorship and finding the right fit

50:32  
 Anastasia  
 Yes, it’s a really big thing. To be a mentor requires a lot of time and effort, right?

50:35  
 Alexey  
 I don’t know… It’s the first time I see your face on LinkedIn. Wait, sorry — how should someone approach you if they really need help?

50:52  
 Anastasia  
 That’s a very good question. There are many ways to find a mentor. Some mentors are paid, like me, and others are unpaid. There are also communities where you can find unpaid mentors. Regardless of whether you're able to pay or not, I suggest starting with these communities. You’ll find people who have made the decision to dedicate time to mentoring.  
 This decision is crucial. There are people who just start mentoring because they realize it’s important to them, but most people you randomly approach online may talk with you once out of curiosity. However, it won’t be very helpful, and it’ll be a waste of both your time and theirs.  
 So, when reaching out, it’s important to have clear goals: why you need help, what you're missing, and why you’re approaching that particular mentor. Even for paid mentors, I still choose the people I work with, because I know I can’t help everyone. The description of your goals matters even in those cases.

52:27  
 Alexey  
 Yes, I agree. When someone sends a concrete message saying, "This is what I need help with — how about meeting for lunch next week?" it’s much more effective. It shows clear intent and makes it easier for the mentor to help.

52:55  
 Anastasia  
 Absolutely! If you just say, "Hey, be my mentor," the best thing that might happen is that people don’t respond. I doubt that approach would get a positive reply. It’s much better to be concrete, ask for a manageable amount of time, and show you're serious. If you're asking for too much time at the start, it can be overwhelming for the mentor, especially if they’re busy.

53:37  
 Alexey  
 I saw a comment on YouTube about paid mentorship, saying it sounds odd. But for me, mentors invest time and energy, so it doesn’t sound strange. What do you think?

53:52  
 Anastasia  
 That’s a great question. As someone who invests a lot of time in mentoring, I can’t imagine doing it for free all the time. Though I do sometimes. I’ve been part of unpaid communities before, and I understand there are some downsides to that. When you pay for something, you tend to take it more seriously. It’s a commitment. You’re investing both time and money, and that makes you more committed.  
 From a mentor's perspective, it helps us maintain quality interactions. Mentorship becomes more productive because both sides are invested. Of course, sharing my knowledge has also been free at times, like posting on LinkedIn. But when I’m mentoring one-on-one, it’s more personalized, and it requires a lot of energy. It’s absolutely worth it, but if paid mentorship isn’t for you, that’s fine too. There are many free mentoring options, especially in Germany, where people are sometimes hesitant to charge due to tax concerns.

55:44  
 Alexey  
 I agree. When you were at Blue Yonder, people approached you to be their mentor. I’ve had a similar experience in my previous company. It’s interesting because it adds more work but without a salary increase. It’s unpaid labor in a sense, but the experience is valuable. Also, it’s good for career progression, for example, moving from an analyst to a data scientist position. There are already frameworks in HR departments for that.

56:30  
 Anastasia  
 Right. Within a company, being a mentor can bring additional benefits. It might not be paid, but it can be good for your promotion or expanding your network. You often work with people outside your immediate team or department, which is valuable. Mentorship within a company has always existed, and it still adds value even if it's not officially compensated. If you’re looking for an external mentor, it's important to understand their motivation for mentoring. You’ll want to know how far they can help you based on that motivation.

57:30  
 Alexey  
 Right. I actually used my mentorship experience to help with my promotion.

57:46  
 Anastasia  
 I didn’t do that back then, but at one point, I realized that at Blue Yonder, I couldn’t go as far or as fast as I wanted in terms of leadership positions. I wanted to explore leadership outside of the company, which is why I left. Having the mentor experience helped me because even though I didn’t have a formal title like "manager," I had led projects and teams informally. When I discussed my mentorship experience, it became clear that it was relevant for leadership positions in data science, even without formal leadership titles. It gave me an edge in interviews with companies that valued those skills.

59:10  
 Alexey  
 Last question: Which communities would you recommend for people looking for unpaid mentors in data science?

59:24  
 Anastasia  
 Honestly, I’m not active in these communities right now, so I don’t recall the names. But I believe there are many options available.

59:33  
 Alexey  
 I remember seeing one during the COVID-19 lockdown— it was all over social media.

59:42  
 Anastasia  
 Maybe we can link something. Mentoring Club sounds familiar. I also know MentorCruise, but that one’s paid.

59:58  
 Alexey  
 Google is your friend. By the way, I think we should rename this episode, since we didn’t talk about LLMs as much as we thought. Maybe something like "Large Colliders & Mentorship." I want to thank you for sharing your experience and expertise with us today.

60:52  
 Anastasia  
 It was a pleasure for me as well. Thank you, Alexey, for the interesting questions and discussion. I wasn’t prepared to talk much about my research career, but I’m glad we did. I hope people learn something new. LLMs are all the rage these days, but I guess the LHC deserved attention too! Thanks for inviting me, and I wish you and all the listeners and viewers a great day.

61:22  
 Alexey  
 Thanks, everyone, for joining and asking questions. Next week, we have a break, but then we’ll have more interviews. Stay tuned, and bye for now!

2:35 Career overview and transition from physics to data science

7:02 Working at the Large Hadron Collider

9:19 How particles collide and the role of detectors

11:03 Data analysis challenges in particle physics and data science similarities

13:32 Team structure at the Large Hadron Collider

20:05 Explaining the connection between particle physics and data science

23:21 Software engineering practices in particle physics

26:11 Challenges during interviews for data science roles

29:30 Mentoring and offering advice to job seekers

40:08 The STAR method and its value in interviews

50:32 Paid vs unpaid mentorship and finding the right fit