0:00

Alexey

**This week, we'll talk about switching careers from marketing to analytics engineering. We have a special guest today, Nikola. Nikki started her career as a performance marketing specialist and quickly realized that she needs to rely on data to make good decisions. That's how her data journey started and she eventually became an analytics engineer. In this interview, we will find out how that happened. Welcome to our event.**

0:30

Nikola

Thank you very much for having me.

# Nikola’s background

0:32

Alexey

**I want to mention – this is something new – questions for this interview were prepared by Leat Shemesh, and Victoria Perez Mola, so thanks a lot for your help in preparing the questions. If anyone here who is listening and wants to help us prepare for more interviews in the future, please reach out to me. Okay, let's start. Before we go into our main topic of switching to analytics engineering, let's start with your background. Can you tell us about your career journey so far?**

1:04

Nikola

Yeah, of course. I actually studied in the UK, in London, and I moved over to Berlin soon after graduating from my Bachelor's quite spontaneously. I found myself just in the data startup scene, like many English-speaking people do, [chuckles] because it was pretty much the only available route. So I started out working for Movinga, which was a big removals startup, backed by Rocket Internet. I was working in the operations team there. I kind of had my first taste of working at a startup there.

Of course, as you can imagine, that was very intense – fast growth, lots of change. It was kind of a baptism of fire for six months. After that, I found a job at Ecosia. I was really following Ecosia really closely because I really was inspired by the business model and the mission. For those who don't know, Ecosia is the search engine that uses its profits to plant trees. It's essentially a purpose company, which means that profits are basically entirely used towards financing the tree planting project. Then I suddenly saw a job for a generalist marketing role, which I applied for. My first role at Ecosia was actually sort of more generic marketing.

2:46

Alexey

**Was it something that you also did at Movinga? Was it something different?**

2:53

Nikola

It was completely different. But it was a generalist kind of junior role, where you're helping write press releases, think up campaigns, reach out to potential partners – this kind of work. I've done quite a lot of that through university when I've been volunteering for an organization that helps students get into volunteering. Through that kind of work, and through more not professional work, but rather just more organizing, political work, event planning and stuff I've done at university, that's kind of where I had built up those organizational and marketing skills from. That's essentially what I ended up really speaking about largely at the interview.

We were a really small company with 15 people when I joined. So it was really one of those early-stage startups. We were doing whatever job needed to be done. Sometimes it was replying to user feedback, other times it was helping test a new app design – all sorts of things. At some point, I felt like I really wanted to go deeper into an area and I basically started running the paid campaigns that we started doing after I joined the company. First it was on Facebook, but later on we expanded onto YouTube and Instagram. And I really enjoyed that. I found it very helpful to really focus in on a specific area.

Something I found very gratifying about performance marketing was that you get results very quickly, so you can kind of really see what's working and what's not working. As opposed to other areas of marketing where something like a press campaign or brand activation, where it's not necessarily clear what impact that might have had right away. Sometimes it's really difficult or almost impossible to measure, which I found very frustrating. [chuckles] But with performance marketing, you're given the data immediately and you can analyze that and make a decision in minutes on how to move forward. I got really, really into that.

Of course, there are so many online resources for performance marketing, and in general. It's a relatively new discipline as well, in the grand scheme of the history of marketing. So I was really able to dive into that by myself, largely. I was given a lot of responsibility at the company as well, so I learned that way. I did that for two years. At some point, I also started to kind of think, “Okay. Well, I feel like I've kind of understood this. It maybe has its limits in terms of what's interesting or not.” The part that I really enjoyed was looking at the data coming in, analyzing what the click-through rates are saying, what the conversion rates are and what that means. “How can we optimize this campaign based on the data that we're getting? How does it compare with historical trends?” All of this sort of work I really enjoyed.

At the same time around this time, the company had switched to Looker from Tableau. At the time, we only had one data person at Ecosia. I helped her with the migration to Looker just as a side project. Since I was kind of the person who was most comfortable with data and reporting and numbers and measuring KPIs and whatnot in the marketing team, I took on building out the marketing team reporting. And I really enjoyed that.

# Making the first steps towards a transition to BI and Analytics Engineering

7:04

Alexey

**It was your initiative, right? Nobody told you, “Hey, you should do this.” You were just like “Okay, this sounds interesting. I really like this topic. And I kind of learned everything that was there about performance marketing, so let me try to also run this new tool.”**

7:18

Nikola

Yeah, exactly. I think at this point, it wasn't really clear to me that I wanted to necessarily move into the data team. I just wanted to maybe have more focus on numbers and data in general, but probably still within the marketing team. Eventually, I think the big shift that happened was – the pandemic hit. Like a lot of people, it just forced me to consider what I was doing and whether I was happy in my role, and I found that I really wasn't. At this point, I decided to yet make the shift into the BI team. I think, at this point, I had already done a SQL course some months before with a view to going down the marketing/analytics route. But with the pandemic, I really realized that I wanted to move away from the purely marketing focus and go towards BI.

8:29

Alexey

**These SQL courses – did you have a plan that you wanted to work in the BI team eventually? Or it was like, “Okay, let me see what I should do in order to do my job better.”?**

8:45

Nikola

I think I remember speaking to my colleague in the BI team, who was in the context of being a marketing analyst person. Initially, the idea was kind of that I'd sit between marketing and BI. But I think it's because I really didn't think it was possible for me to move departments. That hadn't really happened in the company before. There wasn't really an example of that to me. So I think I was rather thinking, “Well, what's possible? What could I do?” And it was this marketing analyst role. But yeah, I definitely took the SQL course in order to move closer towards the data side.

9:36

Alexey

**So then you realized, “Okay, maybe I'm not really super happy with the job I'm doing in the marketing department and there is this BI team.” So did you just approach them and ask, “Can I just join you and start working with you?” Or how did this happen?**

9:53

Nikola

Eventually – yes. I think eventually the conversation was already there, as I mentioned before, around how to become more into this marketing analyst role. Already, my colleague was giving me lots of advice. It was probably through that process and those conversations that the possibility of me moving into the BI team came up, to be honest. I don't remember exactly who brought it up. But what I remember is my colleague in BI saying, “Well, these are the things that we really need you to have. Once you have those things, there's no reason why you shouldn't be able to join the team as a junior analyst.”

# Learning the skills necessary to transition to Analytics Engineering

10:42

Alexey

**Do you remember what these things were? SQL, I suppose, is one.**

10:45

Nikola

Yes, SQL was the main thing. Then learning and understanding the data pipeline that we had was another.

10:55

Alexey

**So it wasn't a list of courses that you have to take, but rather, “Okay, these are the things we’re working on. Try to figure out what's happening there.”**

11:02

Nikola

Yeah, exactly. One of the things was like, “Python would be great.” I ended up doing a Python course, but barely actually using it. It's been useful to have. Of all the things, the most useful practically was jumping into… once you know SQL and you can write and read SQL, you'll still need to get good at reading and writing SQL. You start coming across much more complicated SQL queries and you're like, “[expletive], there's like a nested loop here. Where is this coming from?”

Then improving SQL to be able to read and understand much more complex data models – that was a big part of the journey. It was really about understanding what our models were, how everything fit together in the wider scheme of the pipeline, and how it came to be. Because I had no idea even how a tracker really worked – I just sort of knew that there was this thing called the Snowplow Tracker that collected the data. But it was all sorts of not very detailed knowledge. So really going in and understanding how things really work to get the data from one point to the other and transform it.

# The in-between period – from Marketing to Analytics Engineering

12:29

Alexey

**Did you need to keep doing your old job of marketing specialist, or could you completely just immerse yourself in BI? Or was there some in-between period where you had to do both?**

12:50

Nikola

To be honest, as part of the performance marketing role, I was really acting like a kind of marketing analyst, in a way – building the reporting for the teams and for the people who are doing other jobs, I was helping them build reports and managing that. So I was already kind of doing a lot of that kind of work. There was a transition period where the first projects that I worked on were more marketing-focused. I think one of the main projects was helping establish how to measure brand campaigns, looking into that and building dashboards based on that, and a wider topic around that.

I think it was kind of a transition period, but at some point, I just handed over the main performance marketing tasks, which are managing the campaigns. It was quite a good moment because the pandemic meant that we were already hitting a slight stagnation point with some of our campaigns. Then the pandemic hit and it was really difficult to record new ads, as well, in quarantine. There was a kind of natural slowing down of that side of the work anyway, so it was a good moment to pivot.

# Nikola’s current responsibilities

14:14

Alexey

**And what do you do now? What do your responsibilities include?**

14:20

Nikola

As I've mentioned, I'm working as an analytics engineer, but also as a data analyst. We are still a relatively small team. We are four people in total. For reference, the company size is just over 100. None of us have a particularly specialized role. We kind of do a little bit of everything at the moment. Our team lead is on extended leave, so I'm acting as interim team lead. A lot of work is really working with the new CPO who's just come in, reassessing the KPI that we have at the company and how we measure them. Of course, I think it’s quite common when a new C-level comes in to rehash the dashboards and rework the core reporting to suit the new requirements, so a lot of work has been recently done on that.

There are two of us that are in these analyst roles and we work very closely with product managers. We're focusing very closely on supporting the various product teams with experimentation, building out new features, A/B testing, evaluating those, and when necessary, building out our data model to reflect those new changes. I think the day to day is really a mixture of supporting the teams – sometimes ad hoc analysis is needed. For example, there is a new feature being developed and there's some hypothesis around the kinds of users they want to reach and how big those cohorts might be, jumping into the data and taking a look at that. Other work is maybe more on an initiative of our own. For example, recently, we ran a big RFM analysis (recency, frequency, monetary) user behavior analysis, which was a bigger project. There's many ways to do it and we took some time to experiment with different options. That's been a larger project over some months with several presentations of insights.

There are those bits of work where we're not necessarily working directly for an individual product manager, but working on wider pieces of analysis and insight that's beneficial for the company as a whole. I just wanted to add that we've also recently started doing a few small data science projects in the team, just on the side, which I myself am not directly involved with. But one of my colleagues is. We're trying to basically run some NLP models on trying to improve how we understand queries that our users make, and try and essentially build better query categorization so we can ultimately serve better results. It's been really nice that we've been able to pick up some more data-sciencey topics in the team and not work exclusively on reporting and internal.

17:59

Alexey

**This query understanding – it's about understanding intent, right? Why a user is searching for some information: Do they want to come in and navigate to a certain website? Do they want to get some information? Do they want to buy something?**

18:14

Nikola

Yeah, exactly. Specifically, it's around being able to segment various queries into the correct categories. So “does this query or query group fall into the category of ‘travel’ or ‘shopping’ or ‘transport’ or etc.?”

# Understanding what a Data Model is

18:34

Alexey

**So a different kind of characterization. When you were describing what kind of duties you have and what kind of things you work on, you mentioned that you're working on KPIs, dashboards, supporting product teams with experiments, ad hoc analytics.**

**You also mentioned a data model. Up to the data model, I think I understood, more or less, what you are doing. But what is a “data model”? Why do you need to build a data model? Why do you need to update it?**

19:07

Nikola

We built a data model in DBT based on something called the domain model. Basically, we began two or so years ago, maybe even longer now. We migrated to DBT. In that moment, we basically rewrote all our queries basically to build all our tables – the whole database was rebuilt from scratch. It had evolved over time. We have something like six installed tables or something ridiculous.

19:50

Alexey

**Six what tables?**

19:51

Nikola

Install.

19:55

Alexey

**The data model is about describing what kind of data you have – all this schema and definitions, right?**

20:00

Nikola

Yeah, sorry. For the data model, what I mean is – what we have in DBT, essentially, is all about different transformation logic for the entire business, from the most basic staging layer down through to the presentation tables that we then use for analysis.

# Tools needed to work as an Analytics Engineer

20:34

Alexey

**I’m just trying to understand what kind of tools you use. You mentioned three tools already. You mentioned Snowplow, which is a tool for tracking – to understand what kind of actions users perform and save intersections. Then you also mentioned DBT, which is a tool for transformation. You have some data sitting somewhere and you need to change it slightly, rework, aggregate it, and then put it in such a form that you can use it for reports. You also have Looker, which is a tool for dashboards. What else do you use? You probably use some sort of database (a data warehouse) right? Maybe some other tools too?**

21:18

Nikola

Yeah, exactly. We use AWS services, so we use S3 and Redshift, and also Spectrum as well to query Athena. We play around a lot with so-called “hot and cold storage” so keeping data in Redshift versus keeping it in S3 in parquet files. That's due to cost optimization. That's what we use for our lake (warehouse). And then we use Airflow as well, as our orchestration tool and for our extracting and loading operations.

22:03

Alexey

**Was it a part of your job to set up all these tools?**

22:08

Nikola

It was part of my job to set up DBT. That was one of the first big projects. I'd been in the team for maybe six months or so and then we began the migration to DBT. We actually worked with a data consultancy, a small one, that helped us because we were essentially three people. I led that project – it was one of my first big projects, which was great. It was a really big learning curve.

I got to learn not only about DBT (the tool itself) but also data modeling theory and practices and different ways of doing things – what makes sense depending on the size of your data and your goals and needs. That was really great. So DBT is the main one. Looker as well, as I mentioned, I helped to migrate to and implement in the company.

23:06

Alexey

**This was before you actually joined the BI team, right? So you started this in marketing looking at this tool.**

23:12

Nikola

Actually I strangely learned LookML before I learned SQL, which is a slightly strange, I think, way of doing it. [chuckles] But there we go, that's how it happened. And Airflow was set up by my colleague who has more of a data engineering role within the team. That was also set up relatively recently – in the last two, three years or so. Those are the main tools. We recently started using Airbyte. Some people might be familiar with that. It was basically to be able to extract from some kind of common API's data sources. We haven't used it extensively.

So far, we often find that we've got a lot of options, but specifically what we need often doesn't necessarily have the connection yet. But I think it's a nice tool – relatively easy to use. We've also recently started using Redash, which is an open source visualization tool that we use for more ad hoc queries, to be able to have the visualization attached to them as well.

24:26

Alexey

**It seems like most of the tools are open source, apart from AWS. Is Looker open source?**

24:32

Nikola

No, I don't think so.

24:34

Alexey

**But the rest are, right? Snowplow is open source. DBT is open source. Airbyte is open source. Redash – I don’t know. Is it?**

24:41

Nikola

Redash is open source as well.

24:44

Alexey

**So you like open source. Don’t you?**

24:47

Nikola

Yes. [laughs] Exactly.

24:51

Alexey

**Do you host all these things yourself? For example, when it comes to DBT, do you use their cloud?**

24:57

Nikola

No, we host everything ourselves. That's just the general decision of the engineering department.

# The Analytics Engineering role over time

25:06

Alexey

**When you joined the BI team were you already called an analytics engineer, or you just realized over time that, “Okay, this is what I should call myself.”?**

25:17

Nikola

My official role is Analytics Engineer and Data Analyst, because I really do both. We’re not the size of a BI team that it's possible for someone to want too much to do. But I think initially, it was… I don't know what the title was initially, BI Analyst or something – Data Analyst. At that point, even the term Analytics Engineer really wasn't common. I think I really only learned about that in the process of implementing DBT, which was in 2020.

Really, some time has passed since DBT has obviously become huge in the data community. I think this role of an engineer is also becoming much more common. But I think at the time, when I joined the team, that wasn't even an option. I don't think anyone even thought of that. I don't think the people in the BI team were actually calling themselves that, even though that's essentially the job they were doing. Over time, as we all became familiar with that new term and realized that it basically described what we were doing – so that was taken on.

26:36

Alexey

**Do you think there's some hype in that role? I mean, there was no such thing before and now, all of a sudden, everyone’s talking about analytics engineering.**

26:45

Nikola

Yeah. To be honest, if you have a small BI team of six or less people – I guess it depends on your company, and your product and the business model – but I think it's a little bit overhyped. Ultimately, I still think that you need quite a large organization to be able to comfortably segment data analysts and analytics engineers – they have so much crossover anyway. I can see that in larger organizations, it's really helpful to have that separation. But I think in smaller ones, it's not that helpful, at least in my experience, which is simply this is one company. I can't speak for others, but I found that it's helpful in terms of your own personal progress, because you can align yourself with this role and say, “Okay, yes. This is what I do. This is somewhere where I could improve and an area that I could spend more time on, but I'm not necessarily sure.”

I think for most small/medium-sized companies, I don't think it's necessary to get really bogged down into the differences between the two. Ultimately, you’re still going to need very overlapping skills. You need to be very analytical, very comfortable with your KPIs, what the business model is, the domain model – all of that work, which is not limited to an analytics engineer and a good data analyst needs all of those things. I think there's maybe a little bit of hype. But again, as I said, it depends on the organization size. If you have a huge company with a data Department of 20, 30, 40 people, then of course, it just makes structural sense to split out and focus.

# The importance of DBT for Analytics Engineers

28:40

Alexey

**Do you think it's synonymous to using DBT? Like “You use DBT, therefore, you’re an analytics engineer.” And “If you’re an analytics engineer, then you use DBT.”? Are they the same thing? Or can you be an analytics engineer without using DBT?**

29:00

Nikola

It's a good question. I feel like DBT themselves have really promoted this concept, right?

29:07

Alexey

**I think, yeah. It’s coming from them.**

29:09

Nikola

Exactly. [chuckles] In a way, yeah – it kind of is synonymous. I, at least, haven't seen many job applications for an analytics engineer that haven't been like “Your job is to work with DBT.” [chuckles] I'd be interested in how that role could look with a different stack. I imagine there are people who are working under the title of data engineer or data analyst who do the work of an analytics engineer, but just don't call themselves that in other companies that maybe don’t use DBT.

29:48

Alexey

**In the company where I work, we don't have DBT. We have a homegrown DBT kind of replacement. But it was before DBT was popular. As many other companies, we kind of invented DBT, which is like an Airflow-based way to schedule SQL queries. I don't think any of our analysts who use this to call themselves analytics engineers. I'm wondering, are there any tools that do the same thing as DBT apart from these homegrown tools like we have? Is there any such thing on the market?**

30:28

Nikola

I don't know, to be honest. [laughs] I haven't had the time to really look into it. I think at the moment, DBT is on such a growth trajectory. I see so many job ads that are looking for people to help them set up DBT. I think it's really taking off, so I don't presently know. Like you said, we were previously using SQL Runner, which is like Snowplow. It’s kind of similar. That’s exactly what you described, basically. An orchestration tool for SQL queries, where you can specify the order and whatnot. Incrementalization strategies were not invented by DBT. There's many ways to set those up and there’s other kinds of setups.

In terms of analytics engineering, I think for me the focus is on the wider architecture of the data model, and with data analysts for example, perhaps there’s not so much focus on that. For me, that's where the analytics engineering role is, really important. Once you start collecting from various different data sources you have all of these issues around consistency and, of course, freshness. All of these various concerns are where an analytics engineer really needs to shine – to understand how everything fits together in this wider ecosystem. Perhaps an analyst doesn't necessarily need to understand all the transformations and how everything connects to each other, but an analytics engineer really does.

I think this focus on data modeling theory is much more important. In that way, it's slightly more like a theoretical role in many ways, which I think is often not really talked about. Often the focus is on the technical side, which it is, but I think it's really important to understand, as an analytics engineer, the different kinds of data modeling frameworks and what's possible. Whether having a wider table or a narrower table – in which case should you go for one versus the other? When should you choose a certain kind of incrementalization strategy and when not? So I think that's part of the role that is very specific. I guess it’s becoming more and more important, as there is so much more data that companies in general are collecting. By virtue of more companies, smaller companies, different kinds of companies, and the traditional big enterprises start using and collecting data and building up data departments, then, of course, this becomes more of a need.

# Where can one learn about data modeling theory?

33:46

Alexey

**About this data modeling theory that you mentioned, and selecting whether it should be a wide table or a narrow table – if I wanted to learn more about this, where would I go? What kind of resources do you have about this?**

34:01

Nikola

That is a good question. I really struggled a little bit with this, because there's really a lot of quite… I wouldn't even call it “advanced” stuff. But the textbooks that you can buy on data are very dry. [laughs] I'll just be honest.

34:17

Alexey

**Kimball and this kind of stuff, right?**

34:20

Nikola

Yeah, Kimball. There's loads of textbooks.

34:21

Alexey

**It’s something I studied at university but never actually saw this book outside of university.**

34:27

Nikola

Exactly. To be honest, I've given them a good shot and I found that I just learned by doing. I learned through talking to the people who were my mentors or seniors – who are experts and I just asked as many questions as I could. I was never afraid to just ask stupid questions (and repeat questions if I needed to) until it made sense.

Sometimes if I had the basic knowledge and had something that I wanted to understand, I would go and just research online. There are increasingly a lot of really good blog posts and newsletters that are available. I think increasingly there are more and more resources that are a lot more accessible to people who haven't necessarily studied computer science or data science or statistics or these sorts of subjects at university.

# Going from Ancient Greek and Latin to understanding Data (Just-In-Time Learning)

35:27

Alexey

**You didn't study that, right? Did you?**

35:30

Nikola

No, I studied classics, which are Latin and ancient Greek. [laughs]

35:36

Alexey

**That was your education?**

35:38

Nikola

That was my Bachelor's, yeah.

35:42

Alexey

**Interesting. So you speak Ancient Greek and Latin?**

35:44

Nikola

No… I can read it.

35:48

Alexey

**Interesting. Okay. This just made our interview even more interesting. [both laugh] How do you go from studying Ancient Greek and Latin to being an analytics engineer? You learn basically everything you needed yourself, right?**

36:06

Nikola

Yeah, exactly. Um…

36:09

Alexey

**By “yourself” I mean not as a part of any official curriculum.**

36:14

Nikola

Yep. To be honest, I did this SQL course on Udemy that cost me 12 euros. And it was great. It was really, really good. It was quite long. I can't remember exactly, but I think it was just called The Complete Guide to SQL and it's run by this American dude called Colt Steele. It's just a very strange name. He's got loads of good Python courses as well that I did. I just did that in my spare time. And to be honest, it was really great that it cost me all of 12 euros and I haven't done a single other SQL course since.

Sometimes I do think, “Oh, should I go and pay for one of these fancy courses in data science or something because it's nice to have structure and whatnot.” But then I'm like, “Ah. If I just motivated myself, I could do it.” [laughs] There's so much stuff online. But it's just a case of me being quite lucky to find a good course right away. I think there are some not very good courses out there. It's a little bit of hit and miss. One thing that's really great about software engineering in general and computer science is that if you don't have a lot of resources, you can really teach yourself. There are a lot of resources online.

At the same time, as I said, practicing is really the thing that makes the difference and I was very lucky that I was already at a company where I knew the domain very well, the business model very well, the KPIs. I kind of had all of that already covered and could just focus on developing the SQL skills and data modeling, etc. I can imagine that someone who is maybe approaching this as a career change and maybe taking some time out to do it – it may be a little bit more difficult because you don't have that context of a specific business or a specific problem that you can hold in your mind as you think about these problems and have an example that you can apply the theory to.

38:27

Alexey

**Yeah, there is a thing called “just in time learning,” and I think you took this to the extreme. So without any formal education in computer science or analytics, you just focused on a specific problem, which in your case was marketing and then you were like “Okay, how do I set up Looker to do this thing?” By the way, are the tasks that you do now still more or less related to marketing? You mentioned RFM analysis. I think it's still somewhat related, right?**

38:58

Nikola

Not really, to be honest. No. At the moment, I'm really working very closely with the product team. We are focusing on growing, acquiring more users, retaining more users – which are all of course interlinked goals of the marketing team. It's not directly relevant, but my direct stakeholders are the product managers.

# The importance of having domain knowledge to analytics engineering

39:30

Alexey

**Okay. So I guess your background in marketing really helped you, right?**

39:36

Nikola

Yeah, it really did. I’ve noticed how just in everyday work, I definitely see an edge that I have because I'm very comfortable with things like a marketing funnel and a conversion funnel or web acquisition funnel. For example, a product manager might be focusing specifically on a part of the funnel or a whole funnel as part of the user journey and as a marketing person, you think about the user journey all the time. What are the touch points of the user? How do they feel at this moment? What are they thinking at this moment? What have they done? Where have they come from? You have this quite close empathy with the user, and specifically the journey.

At the same time, your goals in marketing are to constantly optimize and grow and get more users or higher retention or more signups or whatever it might be. So you have this growth mindset that I think is very useful when you come to advising people from a data point of view because you can ask the question, “Yes, you've got some good feedback from the users on this feature. But, ultimately, the top line hasn't moved at all. We did this because we wanted to grow (whatever this KPI is).” It definitely does help, largely in the realm of understanding the user journey. It means that you can really hold this user perspective in your head, but also the data perspective together with it, and advise with those two things in your head.

# Suggestion for those wishing to transition into analytics engineering

41:31

Alexey

**If somebody wants to follow your journey – so somebody who's working in marketing (or not necessarily in marketing, but they really want to go into data and start doing analytics engineering) and they are experts in their domain – what would you suggest for them to do?**

41:50

Nikola

Firstly, I would say [chuckles] Excel is your best friend. Excel is great, ultimately. [laughs] I know everyone hates it, but it really doesn't get the credit it deserves. I still have people in the company who really should and don't know how to make a pivot table. They are quite annoying to make in Excel. The most difficult pivot table you will make will be in Excel. If you can do it there and be comfortable (understand what's happening with columns and rows) that’s the first place to go. So be really, really comfortable with Excel, play around with functions, pivot tables, and just explore. Look at different ways of trying to take a dataset that you feel comfortable with – it might just be something really simple like daily signups by country – and just, in Excel, start playing around with that and asking questions.

Then, of course, SQL is the most important thing. Learn SQL, try and find some datasets online that you can play around with and practice SQL. That's really, really useful. But ultimately, where I found a little bit of a gap in the self-learning was between the online SQL resources and finding advanced SQL queries that made sense – that weren't written by someone on the other side of the world about a company that had no connection to, didn't learn from the business models and was written in a way that, for example, wasn't the style that was going to be written in my team. It ended up just being a little bit confusing and extra work to try and understand. So if there's a way to access some of the SQL code that the BI team are using – maybe you can ask them to share a couple of SQL queries they use to make the main tables – that's definitely something to do.

If your company is using Looker, that's great. That's amazing – to get familiar with that. Really, just start building, building, building dashboards. Explore it. Become really comfortable with filtering, pivoting – those sorts of things. There are a lot of resources from Looker online as well. I think from Tableau as well, or whatever visualization tool you're using – it doesn't really matter. Just become comfortable with the basic features of those. Those would be the main things, I think. Then go from there. Find someone who can be your, if not mentor, then your champion – an ally, I guess, in the data team. Ask them, “What do I need to do? What skills are still missing? How do I do them? Do you think it's possible?” Ask them what they would recommend if you're in an existing company and you're looking to move to that role. I think that would be my suggestions.

# The importance of having a mentor when transitioning

45:09

Alexey

**How important do you think it is to have a mentor or champion in this journey? For you, from what I understood, it was quite important. It was crucial. That person was a marketing analyst, if I remember correctly, that actually helped you. She told you what you should do, what kind of things you should focus on, and then she also was helpful for you to actually transition to the team. Right?**

45:34

Nikola

Exactly. She was the BI analyst (the data analyst) – the only one that we had at the time. Actually, sorry we already had two people in the data team and she was one of them. For me, it was very useful and important. To be honest, though, it depends on the company, your position in the company, how comfortable you feel, what level of power (so to speak) you have in the company.

Also, for me, as a woman, I think transitioning from marketing into a more technical role (I was going to move to the engineering department, there was a meeting) I felt an element of imposter syndrome. I thought, “Oh, what am I doing? Can I really do this?” I think it really helped me to have another female, basically, mentor to champion me and encourage me and say, “Yeah, you can do this. Definitely, you can do this. You just need to do this, this and that. You can definitely do that. Once you've done that, we can find a way.” So it depends. I think if you have a lot of motivation and you're very clear on what you want, and you're confident, then I don't think it's necessarily needed.

But particularly for minorities, there's a lot of support groups outside of work like, PyLadies and lots of different various support groups for minorities in tech, which are great to be inspired by. But I think having that one person in your company who you can relate to can be really helpful just in terms of building up your own confidence. It's definitely something that helped me also to not just transition into the team but, once I was in the team, to accelerate quite quickly.

Yes, I was junior when I joined, but my career path up to being a mid-level analyst and now intern team lead was a lot quicker because I had to fight and be like, “Well, I have been doing analytics work for years before. I haven't actually picked all of this up from scratch.” So having the confidence to make that clear and argue it – it was really helpful having someone to champion me. I would recommend finding one person in your company who can be that for you.

48:24

Alexey

**Did you take part in any of these support groups that you mentioned like PyLadies? Or did you have mentors or people who you constantly talked to outside of the company? Or was it mostly that person and the rest of the team that you talked to in order to learn?**

48:45

Nikola

In my case, it was mainly my two teammates who were the BI team when I joined. They were incredible. So supportive. They really encouraged me a lot and helped me hugely. They were very excited for me to join the team and made me feel very welcome like I deserved to be there. This was very useful because at times, I was like, “Oh, what am I doing here? This is too hard.” But in terms of external support, not really, to be honest. I have two very close friends who worked in data, and it was nice to talk to them and have their advice as well – to have different perspectives from different companies.

Particularly as someone who's been at a company for a very long time, I definitely feel the need to speak to people in different places and see like, “Oh, is it also like this where you are? Is this a specific issue that only we're facing or is this a general thing?” Having that perspective has also been really useful in order to just benchmark certain issues that you come across. [chuckles] I think having a few more external mentors or support would be great. In the coming year, I'll probably look for a mentor just to help with kicking off the next phase of development.

# Finding a mentor

50:23

Alexey

**Do you have any ideas where you can look for these mentors? Would it be conferences, meetup groups or someplace online?**

50:32

Nikola

Probably a combination of LinkedIn, asking the networks of people that I know if they have anyone they recommend. Meetups as well. I think that's probably the best way to go.

50:50

Alexey

**Is there an analytics engineering meetup in Berlin?**

50:56

Nikola

I'm not sure. There's definitely a Snowplow meetup that I think has just started up again (or about to) In terms of the engineering, I'm not sure, to be honest. I know that there are some data meetups. I'm not sure if that's specifically analytics engineering. I have kept an eye open on the DBT Slack group, which is extensive and actually great. They have some city-specific groups and Berlin has yet to make its appearance. Perhaps in the future, there might be a DBT Berlin.

51:42

Alexey

**Yeah, I think there should be. One of the people who helped me with the questions is Victoria. Victoria was a guest on this podcast over a year ago and now she works at DBT. I think she is or will be organizing something soon. Maybe she will tell us about that. I see that it's almost time to finish. I wanted to ask you one last thing.**

# Helpful newsletters and blogs

52:10

Alexey

**You mentioned that you are subscribed to some newsletters. There are good blog posts, good newsletters, and these newsletters are quite useful for you. What kind of newsletters are you subscribed to? If I want to keep an eye on what's happening in this area, what kind of newsletters should I subscribe to?**

52:32

Nikola

That's a good question. There's one I'm subscribed to (an analytics engineering one) that I think is called “The Roundup” or something. Analytics Engineering Roundup. It might be the DBT newsletter, actually. There's another one that I just subscribed to like a week or two ago. It’s called Lenny's Newsletter.

53:04

Alexey

**Lenny's Newsletter. Lenny's the name of the person.**

53:09

Nikola

I've only just subscribed to it recently. I think it was slightly more product analytics focused. Then there is a blog that I'm sure most of your readers will know about. I've just forgotten the name of it. It's called something like Profoundly Optimistic or something… Locally Optimistic, yeah! Yeah that one.

53:38

Alexey

**Yeah. They have a guest coming in as well.**

53:41

Nikola

From time to time, I'll check that one.

# Finding Nikola online

53:46

Alexey

**Profoundly Optimistic is also a good name. [both laugh] If somebody has questions for you, how can they find you? Is it LinkedIn or are there some other ways to contact you?**

54:04

Nikola

Yeah, LinkedIn would be best. They can just message me directly there.

54:08

Alexey

**Okay, Niki. Thank you very much. Thanks for joining us today. It's been a while since we started this conversation. So finally, we had this interview. Thanks a lot for joining us today, for telling us about your journey, for sharing all the experience and expertise you have. And thanks, everyone, also for joining us, for being active here. Have a great rest of the week.**

54:34

Nikola

Thank you for having me.