1:24

Alexey

**This week, we'll talk about career changing. We have a special guest today, Jessica. As you might have guessed from the title, Jessica was roasting coffee working as a barista at some point, but then she decided to learn Python and eventually, she switched careers and started working as a backend developer.**

**I know Jessica because she's one of the students of our course Machine Learning Zoomcamp. This is how I got to know her. I saw that her career is quite interesting and that's why I thought it would be a good idea to invite her to this podcast. So welcome, Jessica.**

2:05

Jessica

Yeah, thank you. It's a real honor to join and be able to connect more with the community – the DataTalks.Club community. The Zoom camp was amazing, if folks have not already checked it out, which I'm sure there's no one listening to this that has not already checked it out – you definitely should. It's great.

# Jessica’s background

2:24

Alexey

**Yeah, thanks. And thanks for taking that course. Let's start with your background. I already told everyone who is listening to this that you have quite an interesting career. Can you maybe tell us about your career journey so far?**

2:41

Jessica

Yes, and I saw you said keep it brief, so I will try to stick to that. [laughs] Because it's a little bit of a non-traditional background. This is actually my third career. I studied and first worked in the film industry. But at some point, I found myself in Germany and I was working in coffee – doing coffee roasting – which is a credibly interesting field in its own right. But I kind of had decided that I wanted to make a switch. I was looking for something a little bit more financially stable, but more work-life balance. I had this concept around potentially being able to get into the tech industry. I already knew some folks here in Berlin who worked in that sector and there are lots of tech companies here. In fact, I have been to tech conferences, making coffee for all the participants.

I had this kind of touch point and an idea of what it was about. But how to go about that was, of course, not known to me. And making that leap was something that was very nerve wracking. I would consider myself self-taught/community-taught. I think one of the things I really want to promote is how much the community supported me. In my case, at the time, that was predominantly the PyLadies community. That happened to be the first one that I went to and I just really connected with the folks there and that really drove me to being at the point where I am now – as a backend developer working in tech for close to four years. It’s just been life changing, to be honest.

4:24

Alexey

**Yeah, interesting. So you attended IT conferences as a barista? I remember, usually at conferences – for example, the PyData conference, which both of us attended recently – there was a stand with coffee, and somebody was serving coffee to the participants. So at some point four years ago, you were one of such people?**

# Giving a talk at a tech conference about coffee

4:48

Jessica

Exactly. Not only that, but I also gave a lightning talk at Eurocamp – the Ruby Conference – and they said to me, “Oh, why don't you come and give a talk? We do these lightning talks.” I, of course, had no conception of what this was. “Maybe you can do something around coffee.” And then I realized I had to get up on the stage and talk to this huge group of people. But yeah – that gave me an idea about some of the “fun” parts, I would say, of the industry, which were very appealing.

5:24

Alexey

**So you were giving talks in front of an IT audience before breaking into the industry. What did you talk about? About coffee, of course, I understand. But what exactly was that? I'm just curious.**

5:41

Jessica

I gave a very brief talk about how coffee traveled the world, mainly due to colonialism. But there's all these – some truthful and some embellished – stories about how coffee got transported to all the different countries that it now grows in.

# Jessica’s transition into tech (How to get started)

6:01

Alexey

**And then you thought, “Okay, this seems like a more financially stable industry. Let's go there.” How did you actually make this transition? From the point when you decided, “Okay, coffee is cool, but I'm looking for something more financially stable,” to the point where you started as an intern. How did this happen? What did you do to get there?**

6:31

Jessica

I think the first thing I did – which a lot of folks that I've spoken to did something similar – I went online and I searched for [chuckles] “What is programming? What courses can I do?” At the time, the big platform was Code Academy and I did a lot of their courses. It’s a really great platform because it's browser-based, so you don't have a lot of the pain of having to run things on your machine. At some point, you then have to transition across to actually running these things on your machine and then it can be a little bit more tricky. But I started that way and really just got a feel for, “Does this interest me? Am I prepared to sit and spend a day trying to figure out what this bug is?” I think you just mentioned that you were currently trying to chase a bug.

7:25

Alexey

**I didn’t fix it.**

7:27

Jessica

[cross-talk] You know, I think there’s certain people… You didn’t fix it. Yeah, well not yet. You will. [laughs]

7:29

Alexey

**Not yet, yeah. Not yet. I spent like four hours and I still have no clue as to why it's not working.**

7:35

Jessica

But you see, there's people that couldn't sit for four hours with that kind of problem. And that's what you need to determine for yourself. And that's what I wanted to figure out for myself like, “Am I prepared to put the effort into this?” For me, the answer was definitely ‘yes’. I get a lot of joy from coding. I really like that it mixes a technical understanding with the creativity that I found in my other careers as well. I was also quite supported by the German government in terms of financially being supported during this learning process. So I definitely would like to highlight that, because that was also a bit of a game changer for me.

8:15

Alexey

**By ‘supported’ you mean – I know in Germany, you can do a boot camp and then the government covers the costs, right?**

8:26

Jessica

Yeah, so they offer something called Bildungsgutschein in Germany, which means “a voucher for further education”. Now, in the last couple of years, it's very popular that the boot camps kind of keyed into this and you can use this towards boot camps. At the time, when I was transitioning – I'm not saying there were none of these boot camps, but there weren't as many as there are now. I didn't really actually know about that option at the time. So the [inaudible] gave me one and I was at a school that was kind of a corporate company that mainly did courses for accountants.

But essentially, I got to go there and not be harassed about getting a job, plus I had a computer and WiFi. For me, that was really all I needed. I’m very self directed – I created a Google Calendar with like, “I'm going to study maths for this hour. And then I'm going to look at this Code Academy course. And then I'm going to maybe do this challenge on Codewars or something like that.” So I just needed time. Of course, to have time, you also need money and that was something that the German government really supported me with.

9:41

Alexey

**How did you know what to put on that calendar? I imagine that it could be overwhelming – there are so many options. If you look at this, there are curricula online, like “How to become a self-taught engineer” and you see this checklist that’s like a kilometer long. You see it and your head spins because you don't know where to start. Right?**

**With data science, it's an even bigger problem, right? You have all these thousands of checklists, every checklist is different. With backend engineering I think it's the same. So how did you prioritize? How did you decide what is right for you?**

10:20

Jessica

Yeah, absolutely great question. I think I've come across a lot of good resources since I started out. I really like some of these roadmaps that you can find, which give you a high level of the things that would be useful. I did not have that, so a lot of it was gut feeling. I knew that I was really interested in data science as a topic, but I didn't really understand (I might also still not really understand) [chuckles] what exactly that means for me. But I started with the Andrew Ng machine learning course on Coursera, which is pretty in depth and it uses MATLAB – so not a language that I have ever used or looked at since.

But I think I directed the calendar around what I was really interested in. I also started doing a lot of the base courses that Code Academy offered. I think, now, what I would recommend to folks is the Free Code Camp curriculum that they have – that's really developed over the last few years. Because you do need some direction. I was totally overwhelmed and I have learned some things that probably were not that useful. Well, I enjoyed it, but I sat and did a lot of maths classes from Stanford online, and I'm not really sure that that in any way fits into what I do on a day-to-day basis, but maybe it will come up. [laughs]

# Going from learning to actually making money

11:53

Alexey

**Was I correct when I said that you picked Python? You studied Python in Codecademy? So you were learning Python, you were learning math, and you are also taking the Andre Ng class. You were sitting somewhere in a room with a computer and WiFi, right? Then what happened next?**

**How did you get that internship? How did you go from learning math sitting somewhere in front of a computer and learning Python to actually getting paid for what you do?**

12:33

Jessica

I was part of a really great program called Rails Girls Summer of Code. Very sadly, the year I joined (which was 2018) was the last year that it ran. This was a program that financially supported you to work on an open source project for three months. You would have coaches and you would work with people from the project directly. It would look a little bit different for each group, of course. The other amazing thing was that you did it as a pair. I saw this advertised, and I thought, “Oh, that would be a great opportunity to get some real world experience.”

But I didn't know anybody else who was learning to code. So I just asked a Slack group, “Hey, does anyone want to do this with me?” And I got very little response. But this one amazing person, Arti, reached out to me. We were complete strangers, but we met and then decided to go on this journey together. It was a very intense way to learn about yourself and about somebody else. But that gave me the opportunity then to go into the application process with Ecosia, where I now work, and say, “Hey. I do know this. I don't know this just on paper, but I also have the experience of working with a team.” Ultimately, I believe that's also what helped me become successful.

14:06

Alexey

**I think there was a similar thing to Rails Girls Summer of Code called “Google Summer of Code”. At least from the description of what you said. At Google Summer of Code they give you some sort of scholarship to work for a summer on some open source project. Before – up until last year, I think – it was only for students, but now you don't have to be a student to actually take part in it [cross-talk] They removed this restriction.**

14:43

Jessica

Yeah, exactly. I wanted to say that one was for students only, but they lifted it. There's also another one. I don't know if you're familiar with it – Outreachy. It doesn't just run in the summer, so it doesn't have a ‘summer’ tag in there. It runs twice a year, but it's a very similar concept.

15:00

Alexey

**Okay, so you get paid for contributing to open source and you get a mentor who helps you. Yeah, that's pretty cool. So you did that, there was a person (Arti) who was doing this with you, and then he connected you with people from Ecosia. Did I pronounce it correctly? Then you got your internship, right?**

15:23

Jessica

Yeah. Arti and I did that at the same time. But what was amazing is that she actually got her first programming job, just before we took on the internship. If she had dropped out, I couldn't have done it. But she kept going so that we could pass it together. I met Ecosia because I went to a meet-up. So I think hopefully now, it's looking like meetups will start to be a little bit more in-person again. It's a great way to meet companies. That for me, meant there was like a bit of a personal connection to talking to the developers at Ecosia and it also gave me insights for when I was applying, about what the company was about.

# Landing your first job in tech

16:13

Alexey

**There is a question that I see, “How did you get your first job in the industry?” I think you just answered that. I don't know if an internship counts as the first job or not, but I think the experience is pretty much real industry experience. But, as I understood, you stayed there as a full time employee after finishing the internship, right?**

16:33

Jessica

I didn't actually apply as an intern. I applied for a mid-level backend position, which I was not qualified for. [chuckles] And they decided to create the internship position for me.

16:48

Alexey

**I see. That's pretty cool. So you actually did do an internship with them. It was maybe like some sort of a test period, right? Where they could see how you work and then actually hire you as a full time employee. That's cool. I guess one takeaway from this is, “Don't be afraid to apply to jobs that you don't seem to be qualified for.” Right?**

17:15

Jessica

Yeah, for the people who are listening, who are job hunting, and for the people who are listening in companies – sometimes it's really worth taking the risk of making space for folks to join.

17:28

Alexey

**How did you convince them that they actually should create an internship for you? How did you make this good impression on them?**

17:37

Jessica

Well, I mean, this was their decision. I didn't suggest the internship, so I don't fully know. But for me, I believe it was because I was showing a lot of inquisitiveness. The interview process, I found really hard. They asked me a lot of questions that I just didn't know the answer to about networking layers, and things like that. I left the interview like, bawling my eyes out. I'm pretty sure I'm not the only or last person to go through that.

But I think what I tried to really key into was reflecting the questions back, and showing an openness and willingness to try and pick up on things. I think that worked a lot in my favor because for an intern, this would be the biggest requirement, honestly. They understand that you're not probably going to be contributing. Although I think that I actually contributed a bunch during my internship. But the focus for an intern should really be like their development and their learning. So I think you only want to go into that if it's someone who demonstrates that they're there to learn.

18:52

Alexey

**Networking layers? Is this the OCI model with seven layers?**

18:57

Jessica

Yeah, it is. I didn't fully know it, so I didn't learn much there. [laughs]

19:04

Alexey

**It starts with the physical level and then it goes all the way up. I’m not sure. It probably has some practical applications. [chuckles]**

19:14

Jessica

Yeah. There's some good understanding there – in understanding exactly how the thing you're building is being served to users. But I honestly can say I've not used this in my job.

# Does your age matter when you’re trying to get a job?

19:28

Alexey

**There is a follow up question from the same person, “At what age?” But before you answer, you don't have to answer that, of course. But maybe – does it even matter at what age you do this? You said you changed your career three times, right? At least in Germany, do you feel age makes any difference when you try to get into a junior dev position?**

19:53

Jessica

I mean, I think age is a thing in many industries, and not in tech alone, but also in tech. I was 32, I think (32-33?) when I was making this transition, so that was also part of my reasoning, in that I was out of the 20s, where I felt I could do anything and feeling like I needed a proper job. I'm not sure I specifically did hit any barriers when it came to my age, but I do think this is something that some folks do see.

I would say it's also a real concern. I've seen this question multiple times when I've talked with folks in the community. I can also tell you for myself, I was also nervous about this, like, “Is this a good time in my life to make this kind of change and decision?” And of course, it very much depends on the individual setup to what the answer to that question is. But I would say overall, I didn't have a problem with this, personally.

21:09

Alexey

**I think this question comes up in pretty much every interview about career changing that we had here at DataTalks.Club. Maybe every second one. It seems to be a common concern.**

21:24

Jessica

I've seen the opposite also – where folks think, if they're quite young, will they be taken seriously? And I think that's also a very valid concern and something that I faced in my career when I was young (younger, let's say [chuckles]). I think those are good questions to ask yourself, but it's really going to depend on more factors. I don't think I have come across a company where they were like, “We don't want to hire you because you're older.”

21:57

Alexey

**Or say that they will be in touch, right? [chuckles]**

22:01

Jessica

Yeah, obviously, they can't say it directly. But sometimes, you know. [laughs]

# Challenges that Jessica faced in the beginning of her career

22:09

Alexey

**There's a question from Nelson and I think this is also similar to a question that I prepared. “What are some of the challenges that you faced during the beginning of your career?” What was the most challenging thing for you? Or things?**

22:22

Jessica

Convincing myself that this was a good decision and to keep going and to not be stressed out as much. Of course, I now wish I could look back at myself and be like, “Hey, don't worry. Chill. It’s gonna work out. You can enjoy some of this process.” Of course, there were financial concerns. I was heavily supported by the government and I'm fortunate that my partner was also supporting me. But I was still like, “If I don't get a job in six months, how much longer can I go on the money that I have?” I think this was really challenging –keeping yourself motivated and focused on the goal. A little bit of fear is probably never a bad thing in general in life – but you shouldn’t let that overwhelm you.

23:11

Alexey

**So how did you keep yourself motivated? You said you weren't sure if it's worth it, so how did you convince yourself that it was actually worth it and that you should keep doing this?**

23:27

Jessica

Community, community, community. [chuckles] I also think, going to meetups, which is a concept that I wasn't familiar with when I started out. I turned up at one and was like, “Ooh, okay. I get to learn for free. I get some pizza and a beer while I'm doing it. This is amazing!” But also, so much more than that – being able to talk to people, being able to listen in to these kinds of conversations or ask questions, and talk to other people who have maybe recently done something similar to what you want to do or even those that are going through it right now. You can really boss bolster each other. Because I feel like it's a lot easier to speak up for somebody else than sometimes it is for yourself. So it's really great if you have other folks who are at a similar point, and you can be their cheerleader, and they can be your cheerleader.

24:21

Alexey

**Yeah, that's an interesting thought. I also heard that it's difficult to find a mentor. There are a lot more mentees and mentors, right? The way you can solve this problem is – a few people who are at the same level can just sit together and form a mastermind group. I don't know where this term comes from, but basically form a group where everyone is at the same level and everyone is a kind of mentor to each other. This is what that is, right?**

24:58

Jessica

Yeah. And that's what the Rails Girls Summer of Code was – that was their concept. That's why you had to do it in a pair, because that was really part of the journey. So like Arti and I have very different backgrounds and being in that situation together, we could understand each other a lot more than even the coaches, per se. Because also, once you've been in tech for a while, I feel like it's a little bit hard to remember some of the challenges that you faced before you got into tech. It's very different.

# Jessica’s role at PyLadies

25:32

Alexey

**Did you also do this with PyLadies? You mentioned that you can learn for free and you can get some pizza. Is it something that PyLadies also does, like these community learning events? Or is it more like a meetup where you just attend and listen to talks?**

25:50

Jessica

Maybe a good segue is talking about the role that I'm playing with PyLadies. Very early on, they were asking at PyLadies for folks to help with organizing. Of course, I was like, “Well, I've literally just learned two lines of Python. I can't organize a community group.” Well, actually, it turns out you can. [chuckles] A lot of the skill sets that are required for organizing a community group are actually not related to coding and there are a lot of the foundational skills that we actually also find really desirable in software engineers and normally put into the bracket of soft skills. But I think it’s a really strong move, to be honest, to get involved in the organizing, because you connect in a different way to the community group. I'm not saying you *have* to become an organizer to have that kind of interaction, but I think it helps.

At PyLadies, we run a number of different events and we also have a global Slack. Very similar, I think, to the DataTalks Slack – it's a place where folks can help each other, share learning resources, share job opportunities, and reach out when they need support. You’ve got to find *your* community, right? With DataTalks.Club, I really like the community and I get a lot from it. But that might not be the community for everybody. PyLadies is the same – our group is open to everybody, regardless of gender or background. Our primary focus is on supporting gender minorities in tech and in the Python community, but we have folks in the community that don't even program with Python. They just like the community. So you’ve got to find the place that works for you, I would say.

# Fighting the Imposter Syndrome

27:41

Alexey

**How do you fight your imposter syndrome? You said that you just learned your first two lines of Python code, so I don't think you felt like you were qualified to run a Python group. You said that, at the end, you realized that it doesn't matter – the skills you need to run a group are very different from being fluent in Python. Right? But how did you convince yourself that you can do this?**

28:17

Jessica

I'm a very stubborn person, I think. [laughs] Um, no. I really lean into this idea of having the support of the people – voicing those concerns and other people voicing their concerns. I realized that I was not alone. I remember being at meetups where they were showing us Jupyter Notebooks, which I can imagine a lot of folks in this community are quite familiar with. But I had never come across a Jupyter Notebook. Even getting it running on my machine took me, essentially, the whole meetup. Then I get in the UI, and I'm like, “I've no idea what this does!” That was a really horrible experience, to be honest, because I felt very alone and pretty useless – let's put it that way.

I would also say, though, that I’ve noticed that that experience was not isolated. I'm not the only person that has experienced that at a meetup. So something I very much try to do actively is – when I'm in a group – try to see for the signs if anybody is not so sure and not so comfortable with what's going on and reach out to them. I think we could all do a bit more of that because it helps a lot, just to know that you're not alone and trying to get this running on Windows and then trying to get it run on Mac or Linux. It is difficult. It's annoying. Even the most advanced engineers kind of hit these problems.

29:50

Alexey

**Did you need to run Jupyter on Windows or on Mac?**

29:54

Jessica

Yes, I bought a Windows machine because I thought that's what programming was. [chuckles] Since then, I got Linux.

# Generational differences in digital literacy and how to improve it

30:01

Alexey

**Yeah, I remember it was not easy for me as well. I was coming from the Java world to Python and I had a Windows computer as well, back then. It wasn't super easy. Now it's easier with Anaconda, but a while ago – maybe you've been doing this four years ago – I can imagine that the tools weren't the same as they are now. Right?**

30:24

Jessica

Yeah. I mean, I have used computers throughout most of my life. I've already told you my age, so you can probably figure out that as a child – as a teenager – we kind of started to get these interactions with computers and text editing. But I've never really used the terminal, for instance. We have folks joining the community who don’t even have that level of “digital literacy” as I would call it. I think for younger folks today, it maybe feels more natural, because we all have mobile phones and most of us maybe have a computer of some sort or access to one. But for a lot of folks that was not a given.

31:15

Alexey

**Yeah. It's interesting that you bring this up about terminal. An average computer user – even if they are younger, who was born and grew up when computers were around – I don't think they use a terminal that often. The reason I'm asking – I'm curious about that – as an instructor of the Machine Learning Zoomcamp and the Data Engineering Zoomcamp, I see that many people, even those who already have experience in data science, let’s say, are not very comfortable in the terminal. For me, it was natural. I didn't even think that for some people it's something outside of their comfort zone. So how did you learn to use it?**

32:04

Jessica

I think there are a few nice courses. I think Code Academy, again, also offered something about that. [cross-talk]

32:09

Alexey

**So you took a course?**

32:12

Jessica

Yeah, I did some courses on this, for sure. I think the only thing with doing it in a browser-based tool is you're not actually on your machine. I remember during the Rails Girls Summer of Code, I wanted to dual-loop my machine into Linux, because it became apparent to me that being the person at the meet up with Windows wasn't always the most fun. And I knew that a lot of the places that I had heard about, that had jobs, also didn't work with Windows machines.

So I thought, “Okay, I'm going to dual boot into Linux.” And I don't know how many folks have done this, but my goodness. At some point, my machine just wasn't really turning on anymore and I had to get someone to help me who then got into the main terminal and, as root, was able to run all of these commands and kind of watching – learning by doing – or learning by having to do, because otherwise you have no computer. [laughs]

33:11

Alexey

**[cross-talk] Try to dual-boot Linux and then something will go wrong and you have no choice but to figure out how it works. Right?**

32:20

Jessica

Pretty much. [laughs]

32:21

Alexey

**In the terminal, I actually had a situation where the graphical interface wouldn't load. So the only thing I had was the terminal? Actually, there are terminal-based browsers – one of them is called LYNX – and I was able to use it for Googling stuff. That was fun. [laughs] [cross-talk]Then, of course, there are things like the manual – the old way of getting help. Instead of looking up something in the search engine, just using manuals on your computer.**

33:55

Jessica

The terminal manuals, yeah. I mainly just looked up on my phone and then was like, “Okay, this command does this!” Also, I wasn't very wise to the fact that you maybe shouldn't just run any random command you find on-line on your computer. But generally, it worked out fine. [chuckles]

# Events organized by PyLadies

34:14

Alexey

**Coming back to PyLadies – what kind of events do you actually organize? I know one, which is a physical meetup – there are speakers, you watch the talk, you attend the talks, and then there is some networking before and after. Is this the only type of event you organize or are there others?**

34:37

Jessica

Previously, (before the pandemic, let's say) we were predominantly running this kind of event that you just described every month, and really encouraging our members to give talks and share knowledge, but also we would invite folks in. We would normally be hosted by a different company every time, so you also had the chance to kind of network and meet big companies. We started to do some weekend-day events, and we were trying to run stuff that would be more beginner-friendly. We were trying to run some events that were essentially for what we just talked about, like, “How do I even install Python on my machine? How do I set up GitHub?” Because you need those steps really kind of join a lot of the workshops that are then run by the community.

We had also been involved in a few conferences, doing panel discussions and doing collaborations with other meetup groups. The pandemic changed a lot. First of all, of course, we could not meet in person, so we started to do things remotely. We've experimented with a few different tools. We've been using Gather.Town for more of the brainstorming events, where we help folks write their “call for paper” application (CFP). If you want to be a speaker at a conference, you need to submit something like this with an abstract and a bio. So we wanted to help folks figure out how to do that.

36:09

Alexey

**That's the most difficult part – applying for a conference.**

36:12

Jessica

Yeah [chuckles]. Well, actually, we ran one in January and I think we had at least three folks from that event then go on to speak at PyCon.de, which is really awesome. Right now, we're trying to experiment a lot more with being much more transparent with how we organize, and also making it easier for other community members to organize. So we're really open for anything. We currently have some study groups going on every month for data structures and algorithms. Predominantly, we're writing that in Python, but to be honest, you can join regardless of the language. We're also doing an open source hack evening. The next one is actually on Tuesday. This is in person, so it's limited attendance. But that's an opportunity to get started working on an open source project and we have some mentors there from SciKit Learn and Gene.ai.

37:17

Alexey

**So these hack evenings are offline events, but the study groups are online? Or also offline?**

37:24

Jessica

The study groups are currently online. Hack evenings are offline and the talk evenings are currently online too. We stream them similar to you, on YouTube. We'd love to do hybrid. Because we’ve found that during the pandemic – I didn't know if you've always done your things online.

37:47

Alexey

**Always, yeah. I can't imagine – it must be very difficult to do it otherwise. First find a venue… then, I don't know. I think there is a lot more overhead. Like getting food or things like this.**

38:03

Jessica

I mean, yeah, that's true. [cross-talk] It's interesting. I think there's different overhead with online. But what we would love to do is hybrid. We found being remote allowed us to reach more people, because we could also do collaborations with other chapters in Germany. PyLadies is a global organization and there's four chapters, or I think, actually, a fifth one just got created during PyCon.de in Cologne. Being online had a lot of benefits and I think moving forwards, it would be really nice to offer more of a hybrid approach. But I do know that a lot of folks in the community really value the in-person events. For some things, for sure – especially if you have someone who is not so familiar with the terminal or how their computer is set up – it can really help to be in the same room, next to them and to go through that.

39:05

Alexey

**Because if it's streamed to YouTube like this one, it's only one-direction. You cannot raise your hand and ask a question. Of course, you can write in the live chat, but it's very difficult to help through live chat. If somebody wants to take part in your events, where can they find them? Is it on Meetup PyLadies Berlin? Or is there another place?**

39:32

Jessica

Yeah, exactly. Meetup PyLadies Berlin is the best place. There's also a link into our Slack. And the global Slack is kind of where we mostly promote things that we're doing.

# Jessica’s beginnings at PyLadies (organizing events)

39:45

Alexey

**I think you mentioned that a bit, but how did you find them? Or how did they find you? PyLadies – how did you start working with them? How did you start running the group?**

39:59

Jessica

Yeah, that's a really good question. I actually am not sure if I remember fully. I think I just came across Meetup and I knew that Python was something that I wanted to invest in because it's got a lot of applications. I already had this concept of being interested in the data science field, although – just to be clear – that's actually not the field that I work in. [chuckles] And they were advertising for organizers during the Meetup.

40:43

Alexey

**So they just asked, “Hey, does anyone want to organize this?” And you thought, “Okay, maybe that would be me.”**

40:51

Jessica

Yeah. [laughs] I am that kind of person, so yes. But, you know, I think there are a lot of benefits to being involved in organizing, as I mentioned before. Not just the networking with other members, but also the element of meeting companies. I've been to lots of companies and talked to them and I can tell you that it’s kind of a different conversation compared to when you're going there and just being like, “Hey, I want a job.” So I think that's really great.

It also helps you build – I think we're going to also talk a little bit about public speaking – but it also really helps you get comfortable in this area as well. I personally find it really rewarding to work with those and seeing their successes is really cool as well. I think that's why I mentioned earlier – it really feeds back into these foundational skills. If you're interested in going into a management role at some point in your career, those are the kinds of skills that you would have to build up.

42:01

Alexey

**Before running these events, I had no idea how difficult actually organizing these things are. [cross-talk] I imagine how useful this can be at work for, of course, non-technical topics. But let's say you want to organize something at work and then all of a sudden, you have all the skills that you need for that. Or for how the team should work – what do they need? And you already have these project management kinds of things. I don't know if it's correct to call it that, but organizing things.**

42:38

Jessica

Yeah. I remember helping to organize one of the off-sites for our dev team, and the CTO was like, “You might have set the bar a little high now.” [laughs] Yeah, it does. It does. But then you don't want to get stuck only doing that work, either.

# Jessica’s experience with public speaking

42:54

Alexey

**Yeah, I imagine. You mentioned public speaking and this is something we indeed wanted to talk about. I know that you are quite an active speaker and you mentioned that you spoke, or gave a presentation, or was it a lightning talk? It doesn't matter. Before even getting into IT, you already gave a talk at an IT conference. So at this point I was going to ask you, again, related to how you organized.**

**How did you feel that you can run a community when you didn't know much about the technology? And the same question applies to the talk – how did you convince yourself that you can actually give a talk even though you're just starting? How did you fight imposter syndrome?**

43:47

Jessica

I think most people, even people who I spoke to that I felt were really proficient speakers, also have nerves. And there's also what we call the impostor syndrome of feeling like we don't have anything to add to the conversation or it's not something that we have the ability to do. I definitely have and continue to feel this. Actually recently… and I'm gonna say this is like – I think you have to celebrate your wins. But recently, I've been asked to give a keynote at PyCon Italia. Honestly, I'm still wondering why they asked me. [laughs]

44:30

Alexey

**That's cool.**

44:31

Jessica

But you have to celebrate your wins. My initial response was just to say, “Oh, no. Sorry, I can't do it.” But then I was like, “Don't talk yourself out of this opportunity.” A lot of the time I think we are our own worst enemies and really holding ourselves back. I think the first talk I gave after I had transitioned into tech was at the Nextcloud conference. Nextcloud is open source software that I worked on with the Rail School Summer of Code and they have a conference. I gave a small talk there about Git commands that I had learned and had fun finding various Wizard of Oz characters and aligning them with the different Git commands.

I think that's a good way – get started with a smaller group that you're more comfortable with. The contributor conference wasn't tiny, but it's not a *huge* conference and it was predominantly people that I kind of already knew. I think speaking at meetups is also a really good way to do this because then you can also get a feel for what topics you want to talk about and also how you want to present them. I feel like this is something I'm also still learning a lot. I've also realized there's some topics I don't want to talk about, where I just feel like I don't have a lot to say or they don't interest me as much. I think I had to go through this process of doing a lot of speaking to actually get to that point.

46:19

Alexey

**Let's say you just learned Git commands – I don't know if that was the case when he gave that talk about Git commands – but let's say you learned them two months ago. How do you actually convince yourself that “I know enough of this not to embarrass myself when I talk about these things”? Because things can always go wrong, even for experienced speakers – live demos will go wrong. So how did you convince yourself that it's okay to do this?**

46:51

Jessica

I think the fear is “What happens when that person at the end puts their hand up and asks me a question that I don't know the answer to, but I've put myself in this position of expert?” I've given talks where people put their hand up at the end and asked that question I didn't know the answer to and felt embarrassed because I felt like I positioned myself as an expert. I think this is obviously totally understandable, that people would feel this way. The thing is – when you're giving a talk on a topic you know, the expectation is actually not that you know *everything* about it, especially if it's a broad topic. With Git, I talked about *specific* Git commands that I had recently learned and got familiar with. But if someone had asked me about a different Git command, I just wouldn't have known.

There is a certain breadth of the topic that you just can't cover. I think also, there’s things like, “Why are you giving the talk?” What is the personal edge on this? And that is something that no one is more expert on than yourself – if it's your experience. For me, I was talking not just about the Git commands, in a way of like, “Oh, here's some Git commands you can learn,” but also my experience of having to learn those Git commands and my feeling towards them. So if you can put your talk in this angle, then you should feel confident because this is the added layer of personality that only *you* can add. No one else is an expert on that than yourself. So I think it's totally fine to feel that fear, but there are also really good techniques that I've learned from watching other speakers of how to *gracefully* say “I don't know.”

48:43

Alexey

**So how do you gracefully say “I don’t know” apart from just being upfront and saying, “Sorry, I don't know that.”?**

48:52

Jessica

I mean, it's also totally fine to just be like, “Hey, I don't know that.” I think one thing you can do is see it as an opportunity to learn. So you can say, “Hey, that's a really interesting point that you raised and I'd love to talk to you more about it.” You don't have to have an answer on the spot. Or it might be something that you think you can answer, but not immediately and you can say, “Hey, I need some time to think about that. Come find me after the talk and we can talk about it further.”

But, I mean, if someone asked you something and you don't know – actually, that also happened to me where someone came and was asking me about my talk. I was talking about big O notation and algorithms and different algorithms’ implementations in Python and I think I had made a small error in one of my slides. Someone came and spoke to me about that at the end. So that was great – it was a learning opportunity for me too.

49:49

Alexey

**After the talk, right? Not during the Q&A?**

49:53

Jessica

Yeah. I think there's definitely a lot to be said for this – if you're the person asking for questions. Yeah, be mindful and if you're giving feedback, also be mindful of how you deliver feedback. Even at the PyCon, I heard about some folks just kind of going up to speakers and being like, “I just disagree with you.” But not really constructively saying why. It's totally fine to have your opinion on something, but also, when it's a subjective topic, maybe also think about what real worth your comment adds to that.

# The impact of public speaking on your career

50:32

Alexey

**Yeah, so how helpful was public speaking to your career? Did it help you land a job or broaden your network?**

50:47

Jessica

I think it's really useful and I think it's very beneficial. I don't think it's for everybody. You obviously, first of all, have to feel comfortable with it and it has to be something that you would like to do. But I think the visibility it brings you is actually quite useful. You get to be invited on awesome podcasts. [chuckles] Like this kind of thing and talk to Alexey, so why would you *not* want to do it? But I also think it does broaden your network. So far, I haven't changed jobs, so I haven't really looked at it in this way. Although I have had job offers after I've given talks.

I've also spoken to people who then want to work at Ecosia, so I've helped the company that I work for [chuckles] have some sort of brand recognition in the tech industry and then indirectly maybe get hired at the company. So I think there are a lot of pluses. I think we need more representation as well. There are a lot of conferences that have a very good selection of speakers, but they don't have a lot of like, *different* speakers. As I mentioned before, it's this personal layer of a topic that I think adds to the interests. One thing that we'd like to do at PyLadies is really support more people, not just to talk at our meetup groups, but then also to talk at other platforms and conferences. You know, some folks get paid for this.

52:16

Alexey

**[cross-talk] You can refer somebody to DataTalks.club – we are always looking for guests and speakers.**

52:21

Jessica

I absolutely have a few people for you. [laughs]

# Tips for public speaking

52:25

Alexey

**Do you have any tips regarding public speaking? If somebody wants to improve their public speaking skills, or I don't know, just get started – do you have any tips or suggestions?**

52:38

Jessica

Yeah, maybe start small? So start with something like a 10 minute talk. There's a great conference called Python Pizza – all the talks are 10 minutes. That’s not to say that a 10 minute talk is easy – don't get me wrong. I think crafting a 10 minute talk… [cross-talk] Yeah. In some ways it is more difficult, exactly. But I also think you can be a bit more contained and try not to cover too broad a topic – be more specific. Really think about this personal element of like, “Why *you're* giving the talk.” It's great if you want to talk about something like a Docker Compose, or some new library – but what's *your* connection to that? Why are people sitting in to listen to *you* talk about that?

I also think you should do some dry runs. Something we do at PyLadies is when we have speakers, we normally do a dry run, which means that they present the talk, maybe not even in a finished state, to a couple of the organizers and we give feedback. I think this is a great way to refine. I haven't done many talks that I've given over and over again. But I hear folks also do this. Have you done that? Where you've talked and then you kind of did the same talk somewhere else?

53:57

Alexey

**Yeah, I did a couple of times. I gave a talk at PyData Berlin before the pandemic, and then somebody saw the talk and said, “Hey, do you want to give the same talk at our conference?” I said, “Yeah, of course.” But then suddenly the pandemic happened, so I couldn't travel to Bucharest. I wanted to travel to Bucharest. So I had to do it online. But still.**

54:26

Jessica

Okay. And was that a useful experience for refining the material?

54:33

Alexey

**Yeah. Also, for me personally, I usually try to give the same talk at work before going to the conference. So this is like a dry run.**

54:43

Jessica

That’s a great tip. Yeah, that's a great idea.

54:45

Alexey

**For conferences, I can't imagine that when you go and give that keynote in PyCon it Italia, Italy, there must be a lot of people watching you – like thousands.**

55:00

Jessica

Yeah, yeah. [laughs] You’re making me nervous [laughs] Yeah. I mean, it's definitely nerve-wracking. I think being on the stage at Go-to – that's a big stage. And that BCC Hall? It is a huge stage. And even though there wasn't like a huge amount of people attending, that is a different experience to maybe having done it during the pandemic and being on Zoom calls and talking.

55:27

Alexey

**Indeed.**

55:29

Jessica

It’s two-edged. I like the interaction with the audience that you get if you do it in person. You don't really get that online.

# Jessica’s work at Ecosia

55:36

Alexey

**I see that we don't have a lot of time left and I really wanted to talk to you about the company where you work – Ecosia. I hope I’m pronouncing it correctly. I know that you're doing some amazing stuff there. So can you tell us more about that?**

55:51

Jessica

I will give you a very quick overview. Ecosia is a search engine, just like Google or DuckDuckGo – any of your preferences. But we're putting our profits into tree planting because we believe that this is the most significant way to have an impact on the changing climate and in a positive way. The company model essentially works like any search engine – when you make searches, some of the results are ads and when you click on the ads, we earn some revenue. We're very transparent with our financials, but we put our profits into tree planting instead of, like, into investors’ pockets. Of course, this is the profits – after we've paid all of our bills and have some for growth and so forth. Right now, I think it's at 50% of our revenue.

One of our real goals is to be earning more revenue so we can put more into tree planting. The work there for me right now is mainly backend engineering work. We work with microservices, and the microservices are actually predominantly written in Go – Golang. So I didn't write as much Python for most of the time that I've been working there. But recently, I kind of moved over a little bit into a new team that's working on adding more green information on the search results. We've had a few projects ongoing, but we started to do a little bit of intent recognition and also working with some of the universities here in Berlin.

So yeah – this was my big hope for the Machine Learning Zoomcamp, which was just amazing, I will say again. It was to try and apply a few more of those skills into my day-to-day work. Unfortunately, it's not *quite* worked out that way as much as I would have liked. I will be honest. But I think having that base and being the person I am, I will still continue to advocate to use these resources and see how it can improve our product and help us plant more trees.

# Discrimination in the tech industry (and in general)

58:10

Alexey

**Yeah, great. Before we finish, there is one question with three upvotes. Maybe we can cover that quickly. The question is, “Did you face any discrimination for being a woman in tech? It is said that tech bros can be pretty annoying.”**

58:30

Jessica

[chuckles] That’s an interesting way of phrasing the question, Sorry, that's why I'm laughing. I mean, let's be real – there is definitely a gender imbalance in tech. Not only in tech, I mean, the other industries that worked in – film and television and coffee – equally have this problem. I mean, yeah, I think being a woman is one of the axes of that, but if you also fall into some of the other marginalized groups in tech, you're also certainly probably going to face a lot more problems than I did. I think being a native English speaker, I had a lot of privilege there in terms of the fact that tech in Berlin is predominantly an English-speaking world. I know a lot of folks in the community where this is a barrier that they face.

I think there is an underlying sexism in our society. So of course that exists in tech as well. And I definitely feel like the tech industry has enough resources to start doing more about this. And not just with sexism, but like all the different intersections of discrimination and marginalization that happens. I'm very hopeful that this is a space where we can really make an impact and I'm always open if people have ideas of how we can do more to do so.

# Finding Jessica online

59:53

Alexey

**Yeah, thanks. Before we finish, how can people find you? @sleepypioneer on Twitter, right? That's the way to find you?**

60:06

Jessica

Twitter and GitHub. In LinkedIn, it's my actual name, which is Jessica Greene (with an E on the end of green). I am always around in PyLadies Slack so you will not miss me there. I'm the one that's posting a lot of stuff. If folks want to reach out, I'm happy to also have one-on-one or a coffee chat, when time permits.

60:28

Alexey

**Okay, thanks. Thanks a lot for joining us today, for sharing your story, for telling us about how you did that. And thanks, everyone, for joining us today as well, for asking questions, for being here today. I think that's all for today. So thanks again.**

60:48

Jessica

Thank you, Alexey. And thanks for everyone who tuned in and the great questions.

60:52

Alexey

**Have a great weekend. Bye.**

60:56

Jessica

Yeah, you too. Happy weekend!