SDS PODCAST

EPISODE 893:

HOW TO JUMPSTART YOUR DATA CAREER (BY APPLYING LIKE A SCIENTIST),

WITH

AVERY SMITH

Jon Krohn: 00:00:00 This is episode number 893 with Avery Smith, founder of Data Career Jumpstart. Today's episode is brought to you by Adverity, the conversational analytics platform and by the Dell AI Factory with NVIDIA.

00:00:14 Welcome to the SuperDataScience Podcast, the most listened to podcast in the data science industry. Each week we bring you fun and inspiring people and ideas, exploring the cutting edge of machine learning, AI, and related technologies that are transforming our world for the better. I'm your host, Jon Krohn. Thanks for joining me today. And now let's make the complex simple.

00:00:54 Welcome back to the SuperDataScience Podcast. I've got such a fun and helpful episode for you today with Avery Smith. Avery is the creator of Data Career Jumpstart, a platform to help working professionals break into data careers like a data analyst or a data scientist role. He also hosts the popular Data Career Podcast, his helpful guidance on things like his podcast, his platform has led him to having quite a large audience. He has 36,000 subscribers on YouTube and 140,000 followers on LinkedIn.

00:01:27 In addition to his content creation and helping people break into data careers, he also runs Snow Data Science, an analytics and data solutions consultancy with clients including the Utah Jazz NBA team. He previously held data scientist roles at ExxonMobil and Vaporsens. He holds a master's in data analytics from Georgia Tech. Today's episode contains helpful tips for anyone looking to advance their career, but is particularly intended for listeners who are seeking their first role working with data.

00:01:57 In today's episode, Avery details how spilling acid on himself led him to becoming a data professional. He provides his Every Turtle Swims Past learning ladder for

breaking into data careers. He tells us what's even more important than skills or experience for landing a job. How one of his bootcamp students went from delivery driver to data analyst by A/B testing her delivery text messages. We talk about which job boards are killing your data career applications and why GitHub is not a portfolio, but what you can use instead. All right, you ready for this great episode? Let's go.

00:02:39 Avery, welcome to the SuperDataScience podcast. It's awesome to have you here for this special episode. Avery, where are you calling in from?

Avery Smith: 00:02:47 I am in Utah. I'm just a little bit south of Salt Lake and I'm actually... my office is a shed. So last year I bought a shed and I refurbished it to have AC and heating and everything and really good internet. And so I'm in a random shed in Utah basically.

Jon Krohn: 00:03:03 It looks fantastic.

Avery Smith: 00:03:04 Thank you.

Jon Krohn: 00:03:05 So for people watching the YouTube version, it's beautifully decorated and yeah, I wish I had such a nice background for podcasting myself. It's so great to have you on the show, Avery. You're a big name in data science and we have a great episode for folks, especially folks who are looking to break into a career in data, data analytics, data science, maybe machine learning. And so let's talk about how you got into this a bit. You left a corporate career in data science to help working professionals break into data science. You have an extremely popular Data Career Jumpstart bootcamp. We've got a link to that in the show notes, of course, also very easy to find with a Google search.

00:03:49 And you also have the Avery Smith YouTube channel, which has lots of great instructional videos. And after watching your videos, it's hard not to notice that you aim not only to teach, but to motivate and inspire with an infectious passion for data that's impossible not to catch. So a career change can be daunting for folks out there that are listening, how do you help career changers stop waiting for permission, whether from a degree, a manager or their own self-doubt, and start framing their past experiences as an advantage, not a liability?

Avery Smith: 00:04:23 That is such a good question and super timely because I recently just had one of my students on my podcast and she landed a pretty sweet data job and beforehand she was not technical, she didn't have a computer science or a statistics degree, but a lot of people went and looked at this person's LinkedIn and the LinkedIn looked like they had a lot of data experience. So I love what you said, how can we make our current experience or our previous experience look more data-y than it might have been? Because data is really everywhere. Any sort of job you're in, you can figure out how to use data there.

00:05:02 And then the other thing is, in terms of motivation and inspiration, I think the number one hiring manager that rejects you from jobs is yourself. A lot of the times we are our own worst self-critiques, and if we can get past the mentality of like, "Oh, I have to be perfect to land a data job, to deserve a data job, to be qualified for one," as soon as we get that out of our mind, I feel like it enables us to actually relax and feel good about ourselves and land our first data job or get promoted or whatever. So I do think that there is a lot of mindset that people can practice to help them in their data careers.

Jon Krohn: 00:05:41 Nice. Yeah, that's great guidance. I agree with it 100%. It is super easy and it's also, it's interesting, I've read research that some sociodemographic groups are more

likely to doubt themselves. So apparently white men, for example, are least likely. And so that, for example, it leads to so many white men picking up podcast microphones and starting podcasts probably as well because there are so many of us out there that are like, "I've really got something that people need to hear." Whereas some other socio-demographic groups, they are not so likely to think that they really have something important to say that they're worthy of this opportunity.

00:06:27 And so for example, I've read that women are less likely to apply to jobs where they don't meet every criterion, whereas men are more likely to just be like, "Ah, I'll just give it a shot." So yeah, I don't know, there's these interesting kinds of things there that there certainly are different levels and there's probably more variance by individual as well, more so than by group. There's people out there who are just more, you want to feel like you're really well-prepared, but I think in a career, like anything in data, any of these careers, it's so fast moving that no one really knows what's going on and you really should throw your hat in the ring.

Avery Smith: 00:07:12 Yeah, by the time you've... First off, I think it's impossible to feel like you've mastered really any part of data because it's so vast. And by the time you've mastered anything, there's five other things that have popped up and the old stuff has become obsolete. So it's definitely one of those things where you can't know it all and once you become comfortable not knowing it all, but maybe you become comfortable how to solve problems and how to figure stuff out, I think that's where, like you said, if you've reached maybe 50% even of requirements like, YOLO just apply. But that's hard to get to that point of feeling that confident for a lot of people.

Jon Krohn: 00:07:53 We have tons of content in this episode on how people can be prepared both for the kinds of general problem-solving

skills that you're describing as well as specific technical skills that are useful in any data job. I've got lots of questions on those kinds of things coming up, but first let's talk more about your career transition and the lessons from that for our listeners as well as some more of this mindset stuff. I've got some cool questions here that our researcher Serg Masís dug up for us to discuss in this show. So first of all, you've apparently described working with hydrofluoric acid as the scariest moment of your life, and so you described your first data job as feeling like a superhero. Can you elaborate on how you became a superhero out of this hydrofluoric acid incident?

Avery Smith: 00:08:39 Your researchers are good. I'm impressed. So yes, I studied chemical engineering in college and I was a chemical lab technician, so I wore the white coat, the huge goggles, the gloves, everything. And I was in the lab doing experiments. And for one particular job I was a chemical lab technician. We worked with heavy metals and to basically clean these heavy metals, we'd use hydrofluoric acid, which is a super dangerous acid. It's very notorious for, if it gets on your skin, it eats into your skin straight to the bone.

00:09:16 And one time I was handling it and I got a little bit lazy and I had decided to only wear one glove, the glove that I was going to be around the hydrofluoric acid, but I was also not really paying attention and I didn't realize that this little vial of hydrofluoric acid was still hot. And so when I took off the lid and it was still warm, the pressure change caused it to jump, and it jumped from the vial onto my other hand and I ran to the bathroom or the sink as fast as I possibly could and washed it all off and luckily I got there quick enough that nothing really bad happened, but I was like, "Man, I got to get out of this sucky job. I don't want to be risking my life for the amount I'm getting paid. You want to pay me millions of

dollars to do that? I'm in, but you want to pay me minimum wage, I'm out."

00:10:06 And so I actually got lucky and basically the place I was working at was very data-centric and they had a data scientist on staff. And he did not work in the lab, he had his own office with really pretty windows with views of the mountains and he got to just work on his computer and not stand in the lab that was freezing all the time. And I was like, "Okay, I want that guy's job, not my job." And so that piqued my interest and eventually after a lot of studying and effort and doing a lot of things wrong, I was able to pivot into a junior data analyst role at this company. At first it was just for 25% of the time and then 50% and then 100%. I eventually left the lab and was just doing data and I was like, "Ah, a computer, no hydrofluoric acid." And my life was good.

Jon Krohn: 00:10:56 That is a really cool approach where you got to do that incrementally that the company was open to doing that. I actually haven't heard of that before. And that's an interesting new idea for maybe any of our listeners out there who are currently in a non-data role but want to be moving into one to say, "Hey, I think I could provide a lot more value for our company doing this kind of data analysis or data engineering, and I've been working on evenings and weekends on these particular courses. I did this project that was relevant. I'd love to actually just be using our company data and I know that I don't have much experience yet. Just give me a quarter of my time to do that."

Avery Smith: 00:11:29 Yeah, it's really powerful, an internal pivot like that where you can become a data person within your company in my opinion for new people, for career pivoters is the best place to go because they already know, like and trust you. They're like, "Oh, we love Jon. Jon works hard and does good work." And so you're less of a risk versus if you're

going to leave a company and go somewhere else, they don't really know you and you don't really have any data experience, and so you're more of a risk.

00:11:54 So if you can do that internally, that ends up working quite well. I will say I got lucky, because I worked at a really small company that had less than 15 people. I think small companies are a little bit more agile like that. I think if I was at ExxonMobil at the time, which I later went on to work for, I wouldn't have worked out so well. But I think an internal pivot, even if you become just the data guy or the data gal on your team, that's a really good start.

Jon Krohn: 00:12:16 Nice, great tip. Another thing from that time that we picked up from our research is that you leverage the power of anti-goals. So you described your motivation as driven more by, "Not wanting to be where I'm at than by some aspirational end state." And so how can our listeners aspiring data professionals use anti-goals as a practical tool to spark change?

Avery Smith: 00:12:40 I think the key is just what do humans want in life? We just want to be happy. And oftentimes it seems like we maybe aren't happy. And so I just knew that I didn't want to be in the lab, I wanted to make more money. I didn't want to work with chemicals. It just felt like, it wasn't a dead end job, but it just wasn't bringing me joy and so I knew I had to make a difference. Because I think the average human works like 80 to 90,000 hours in their lifetime, and it's just like I couldn't picture my future just spending 70,000 more hours just doing this. It wasn't for me. So I think that's really big is just if you're in enough pain, you're willing to work hard to get out of it, I guess.

Jon Krohn: 00:13:25 You mentioning the 80,000 hours reminds me of two resources that I can share with listeners. So there's a website called 80,000 Hours that was created by a friend

of mine, Ben Todd, and we actually had Ben Todd on the show. I can quickly look up his episode number here. He was on episode number 497 back in 2021, so almost four years ago now. Really interesting guy. And he did a huge amount of prep for that episode. He was specifically tailoring it towards people who would be interested in a data science career, but he used this highly analytical career-based approach to providing people guidance on careers. And he had lots of reasons why data careers can be so valuable. So that could be a great episode for people to check out.

00:14:16 And then a book that I read recently that was hugely influential on my thinking, I've actually talked about it on the show before, but it's been at least a year since I have. There's a book called Four Thousand Weeks, which is similar. So 4,000 weeks is about 80,000 hours of work. Oh wait, no, actually 4,000 weeks is the average human lifespan. Not your working time, but 4,000 weeks is actually how many weeks you have in your life, which is the point of the book, which is that there's more to life than work and no amount of optimizing your time and getting more done is going to escape the reality that you're on this planet for a limited time and there's probably things you want to be doing other than work. So it's interesting. It's a really good book by Oliver Burkeman. I'll have a link to that in the show notes as well.

00:15:05 So I don't know, I'm just trying to reinforce the points that you made there. Nice. So now let's get into, we've covered motivations and mindset. Let's now move on to some brass tacks, is that the term? The real hard things that you need to know to get into a data career. You have this analogy, Every Turtle Swims Past. ETSP, which stands for Excel, Tableau, SQL, and Python. And so that's your recommended strategic learning ladders going in that order from Excel to Tableau to SQL to Python, Every

Turtle Swims Past. Do you want to tell us more about this sequence and why it's so important for beginners?

Avery Smith: 00:15:52 Yeah. I created the data learning ladder because a lot of the times people will ask, "Well, I want to be a data analyst or I want to get into data. Where do I start? What tools should I start with?" And I think for me, I don't want to say I did it backwards. I feel like I did it very roundabout in a crazy way, and I think everyone's journey will probably be kind of messy. But I started doing data in MATLAB because that's what I knew and that's what I had access to. And then I got into Python and then I went back to Excel and then I learned SQL pretty late in my data career. So I think every journey's different, but when you're just getting started, my whole philosophy is, we already talked about it, data is hard and it's constantly changing. There's so much to learn and you'll never learn it all.

00:16:41 And so my whole philosophy is let's get you into a data job as quickly as possible. Let's get your foot in the door as soon as possible because the best learning that happens is on the job learning. That's just the stuff that's the most relevant and the most useful, and you're getting paid to learn at that point instead of paying to learn. So my philosophy is get your foot in the doors as quickly as possible. And then in terms of like, "Okay, well how do we get your foot in the doors as quickly as possible?" Well, you do need to focus on the skills that are in demand first off. But then also easy. The difficulty plays a role. So for example, let's say, I'll try to use a real example like Python, Python's super in demand for data roles, but it's also if you've never programmed a day in your life before, it has a steep learning curve.

00:17:28 So that's why it's fourth in the data learning ladder because Excel is in demand quite a bit, especially for a data analytics role. And it's actually pretty easy. Most

people have used Excel one way or another in their career. So that's why I think you should start with Excel, it's because most people have already used it and it's not really that hard to learn. And then moving to Tableau is a little less in demand than Excel, but it's also pretty easy to learn. It's just drag and drop. There's no coding. You don't have to worry about the difference between a for loop and a while loop, and then you get into SQL because SQL is probably the in-demand data tool that there is, but it is a programming language, but it's definitely easier than Python when you're just starting out. And then lastly, Python, because it is quite in-demand, but it's a lot to learn. So my whole philosophy is on this quadrant of how in-demand is a skill and how easy is it to learn? And you want to start with the ones that are in-demand and easy to learn and then work your way up from there.

Jon Krohn: 00:18:19 This episode is sponsored by Adverity, an integrated data platform for connecting, managing, and using your data at scale. Imagine being able to ask your data a question, just like you would a colleague, and getting an answer instantly. No more digging through dashboards, waiting on reports, or dealing with complex BI tools. Just the insights you need - right when you need them. With Adverity's AI-powered Data Conversations, marketers will finally talk to their data in plain English. Get instant answers, make smarter decisions, collaborate more easily—and cut reporting time in half. What questions will you ask? To learn more, check out the show notes or visit www.adverity.com.

00:19:03 What's your take on people using LLMs like Claude or the ChatGPT experience, maybe Cursor for programming to help people out with learning as well as coding? I mean, it's a new world that we're in now where for me personally, I seldom am starting to write character-by-character code ever anymore. It seems like a waste of time, but there's maybe also some things to learn

from doing it that way. What are your recommendations for people around using LLMs to help them?

Avery Smith: 00:19:36 AI is definitely changing. I, like you, when I go to code now, I'm rarely starting from scratch. I think AI can get me usually 60, maybe 70% of the way there, but there is going to be a lot of times where AI is going to be wrong, and if you don't know how to program, you're not going to know where it's wrong a lot of the time. So I definitely think it's worth learning stuff like that, but I think it's a great tool that people should use.

00:20:08 I think people look at it incorrectly and think that it's going to replace people. I don't think it's going to replace professionals. I think it just enables professionals to work smarter. I see it more as a tool versus actually replacing you. And so I think why not start now with trying to figure out how to use it and how to best leverage it? Because it's going to be part of our lives in the future one way or another.

Jon Krohn: 00:20:33 What's your favorite LLM for coding with?

Avery Smith: 00:20:37 You know what's crazy is, I mean for coding with, I guess if you add that, maybe that takes things off.

Jon Krohn: 00:20:39 You can answer both.

Avery Smith: 00:20:42 I mean, I think Claude is really good for coding, but I feel like ChatGPT recently has gotten so much better, especially and with the image generation that just came out last month, that's been super fun to play around with. So a lot of the times I'm just like a ChatGPT boy, just kind of basic. What about you?

Jon Krohn: 00:20:59 I use Claude for most day-to-day tasks, including coding for the most part. And when I want stream of consciousness, immediate results. And I'm basically, I

actually, most of my LLM use is text-to-text. So I'm inputting text and getting text out that is 95% of my usage of these tools comes that way. So absolutely agree with you, things like ChatGPT for image generation, video generation, they are ahead of the game, but for the most part I'm doing text-to-text. And Claude, I love it. It's hard for me to explain. I've loved Claude for over a year and have been paying for a subscription to Claude for over a year to their 20 US dollar a month in the US tier. And yeah, I always feel like it's intuitively what I was looking for and I like the interface. It's a bit more playful, a bit more relaxing, a bit less serious. I don't know. I just really, really love Claude. But I also pay $200 a month for deep research from OpenAI because that is extraordinary.

Avery Smith: 00:22:05 It's really good.

Jon Krohn: 00:22:06 It's really, really good when you have a more complex question, you want an agent to crawl the web, dig up answers on up-to-date information and provide you with a thorough report. I've never noticed a mistake because it's, instead of just stream of consciousness outputting tokens immediately, it's reflecting on its progress and on... So it's constantly iterating on its outputs and on its chain of thought. And so you end up with beautiful, super helpful reports and it's $200 a month, but I'm easily saving thousands of dollars of my time.

Avery Smith: 00:22:45 It's really good. I tried it out and yeah, it's kind of insane. The other thing I love about the deep research from ChatGPT as well, I mean I think most of them do that now, but the sources are really good as well. They have the footnote sources, and so it's like if I want to go read more about some specific part, the deep research is like, "Hey, if you want to go learn more about this, here's five links that talk about this." And that just saves a lot of Googling and a lot of me having to skim through trying to

figure out is this relevant or not? So I agree, it's really good.

Jon Krohn: 00:23:18 Yeah, there are a lot of platforms out there with this deep research name now. It's funny how things like canvas and deep research have become, I guess somehow they were untrademarkable and the industry just decided to converge upon that term to indicate that they mean the same thing. And so Google Gemini has deep research, You.com has deep research. In fact, I think You.com offered it first and other people realized the value in that. You.com, I don't think... they don't make their own LLMs, but they allow you to plug into most of the proprietary ones out there and all the popular open source ones you can pick. And they have modes that allow you to automatically choose which one might be best for a particular task. But they seemed to be leading the pack with deep research. I don't actually know, at least at the time of recording, I can't recall having that experience in Claude. You can have a real time internet search and it will have citations, but I don't think it has that deep, thoughtful, long processing yet.

Avery Smith: 00:24:18 Interesting.

Jon Krohn: 00:24:18 I'm sure they will probably by the time this episode comes out.

Avery Smith: 00:24:21 Probably will.

Jon Krohn: 00:24:22 It seems like something that would have to be on the roadmap. I bet they're just being careful about it as they tend to be, kind of Anthropic's shtick. Anyway, ended up on kind of a tangent here, but hopefully some listeners enjoyed this. And so my next question for you is, so we already talked about your Every Turtle Swims Past analogy, Excel, Tableau, SQL, Python for the strategic learning ladder for people who want to get into a data

career, another abbreviation, acronym, it's not an acronym because it doesn't spell a word, that you have is SPN.

00:24:57 So for your Data Analytics Accelerator Program, you have this three-part SPN method, which stands for Skills Portfolio Network. So the skills part is kind of like the Excel, Tableau, SQL, Python kind of fits into the S, and you recommend people develop skills, build a portfolio, and then network. And I love the importance of portfolio network. Let's get into that in a second.

00:25:22 But we also pulled out from our research on you that networking might actually be more important than even skills. And so, you've considered flipping from SPN, Skills Portfolio Network to the inverse to Network Portfolio Skills, NPS. Yeah, so fill us in on the importance of each of these three steps and your thinking today around the importance of` the ordering.

Avery Smith: 00:25:48 It's really easy to think when you're trying to land a job. It's like, "Hey, what do I have to know?" And obviously you have to know stuff, that's a given now. You have to know some sort of data tool like SQL or some sort of data tool like Python. But the truth is it's like if you only focus on that, you're going to struggle to land a job because the market is really competitive and the skills just becomes a bare minimum and really not what sets you apart. What sets you apart is your ability to display how talented you are via portfolio and how lucky you get/how many doors you can open through your network. And so really skills is just one third of the equation. I think they're all weighted equally. You can maybe argue that one's more important than the other, but you at least have to think of them as equally important.

00:26:40 So being able to showcase your skills, that's a third of the equation. And then the network is the other third of the

equation. And the reason that's the case is it's just how humans work. We as humans, humans hire humans. And you have to know humans. Humans don't hire just random job applications on the internet. So the more that you can make yourself known and make your skills known to someone else and make it easy for them. Because if I am interviewing you or if you applied to a job basically there's maybe a thousand of you, right? There's a thousand applicants. How do I know first off that Jon exists? Second off that Jon is cool and Jon's smart and Jon's nice? You have to make that known as quickly as possible.

00:27:25 And I've come to learn that a portfolio and a network is really the things that will help you get known quickly. Whether that's fair or not, we can argue about, but if you choose to ignore a portfolio and a network, you're doing it at your own detriment because you're basically making the recruiter or the hiring manager's job much, much harder.

Jon Krohn: 00:27:46 I agree 100%. The networking thing is invaluable. And I think pretty much any professional opportunity I've ever had has come from meeting people in-person. I can't think of an instance off the top of my head where I just submitted an application. And that also, and it works both ways. It isn't just about the hiring manager or the recruiter finding someone that they think is smart and cool, but also the inverse. I mean that's basically that is what has guided my career decisions more than anything else, is me meeting somebody at a cocktail party or something and being like, "Holy crap, this person is unbelievably interesting, excited about what they're doing. I want to work with them every day." So yeah, highly, highly recommend the networking thing.

00:28:37 On top of the networking, I've got a few specific questions for you about the portfolio. So for your program, you

push students to tell stories through projects, so not just build them. A great quote that I love from you, I hope to remember to always cite you when I say this in the future because I love this quote, you said, "Resumes talk, projects walk." And that's brilliant. I mean, it's exactly right. A resume feels so static, whereas a project shows that you can walk the walk. And something that I've talked about on this show many times and to students that I've taught in person and online is that especially if you're not networking and meeting people... I mean, whether you're networking and meeting people or not, the way to demonstrate to them whether it's a cold application or someone that you've built a warm connection with your portfolio projects means so much more than saying, "I know PyTorch and I can write out this stochastic gradient descent algorithm."

00:29:38 Much more important than that is that you can be able to say, "I'm really interested in basketball. And so I used Claude to create a scraper that scraped a bunch of data about NBA players from the web. And then I built this. I also use Claude to create this web app that has an AI system in the background that predicts how much a basketball player's going to score in a game or something." I don't know, I'm making up an example completely, but it ties together your real world passions, and if you can do this... I mean, you don't need to be building a web app for most listeners for most data jobs, but that kind of thing, if you can be in an interview and be like, "I can show you." You pull out your laptop and show a working demo of your AI model in some user interface. I mean, if you did that for an entry level data job, I don't understand how you couldn't get hired.

Avery Smith: 00:30:34 It makes such a difference because you're taking something that's completely intangible, it's literally a word on a resume like Python, and you're making it tangible to the person who's making a big risk in deciding

whether you are capable of doing the job or not. You're giving them actual evidence as opposed to just showing up empty-handed. And it can make such a big difference in the interview because a lot of the times interviews are really scary. You're walking in and they can ask you anything. They can give you a skills assessment that are really sucky and scary. But a lot of the times if you're able to supply a project even beforehand or even in the interview that flips the interview on its head, where instead of them asking you questions that are mystery questions, they're going to probably ask you about your own work. And I don't know about you, but it's much easier for me to talk about stuff that I'm familiar with and I've done than just mystery random questions.

00:31:30 So projects just make life a lot better. And it's actually funny that you mentioned that whole basketball thing because I actually thought this was your researcher at work again, because I got an internship with the Utah Jazz and sports internships are notoriously very hard to get. And I had applied I think three or four times for this job and I'd never gotten it. And finally I had built, I don't know, maybe at this point I had 60,000 followers on LinkedIn. And so finally one day on LinkedIn, I just called them out and I was like, "I built this project already. I web scraped all of your shot data for this season and I created these visualizations and you guys should hire me for an internship." And I tagged as many people I could find that worked for the Jazz in the analytics department. And I got the internship. And so I had zero interview for that, no questions asked. They just were like, "Okay, this is cool. Yeah, you're hired." So anyways, I thought that was your researcher being sneaky again.

Jon Krohn: 00:32:23 That's really funny because your basketball... Utah Jazz stuff, basketball stuff doesn't come up in our research at all, but at least not from Serg Masís, our researcher, but maybe subconsciously that did... I didn't explicitly

remember that you'd worked at the Utah Jazz. But last week at the time of recording when I knew that you were going to be coming on the show, I asked my LinkedIn audience if they had any questions for you. And we do have a good question actually that came out of that that I'll get to later in the episode. But I did a little bit of research myself just on you and wrote a little bio and it's the only thing that I added an emoji to for some reason too, there's no other emoji in the post, but I wrote that clients included the Utah Jazz and put in a basketball emoji. So yeah, there's no way that's a coincidence.

Avery Smith: 00:33:13 There you go.

Jon Krohn: 00:33:14 I don't even like basketball.

Avery Smith: 00:33:16 Oh wow. That's so funny.

Jon Krohn: 00:33:18 Yeah, I mean I don't hate it, but it's pretty low on my ladder of sports that I would watch if I had a channel with any sport on to choose, it would probably be one of the last ones, at least North American sports. I don't know if cricket was also an option, I guess I'd choose basketball over cricket.

Avery Smith: 00:33:37 There you go.

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00:34:18 I don't know, I've never been able to get into that sport. Nice. So in terms of these portfolio projects, we've kind of highlighted now how important they are. Do you have specific guidance for listeners on how many projects they should have or whether they should have projects in different modalities? So I spend a bit more time explaining this to people that are looking for machine learning jobs or data science jobs, which isn't necessarily... You advise a broader group of people.

00:34:46 And so when I'm talking about machine learning, I often say things like, "Maybe you should have one machine vision project, one NLP project." Today in the LLM era you might actually have a bunch of NLP projects because it's become so ubiquitous. But historically I'd give those kinds of examples, oh and one on tabular data would also be a great idea. And so do you have something like that where you would typically say, "I recommend that people applying for an entry-level data job should do X number of projects and they should be in X categories"?

Avery Smith: 00:35:17 I think there's a couple different ways to approach it. I think the biggest thing for me is when people are choosing projects is to do something that they're actually interested in. Because a lot of times you're building projects, you're going to hit roadblocks, you're doing it on your own time, on weekends, late at nights. And so I think a lot of projects get started and then die because people lack the motivation to finish them. And so I think choosing a project based off of a job you're really excited about or a hobby you really enjoy. So for example, if you're trying to land the job, let's say at Facebook or something at Meta, I would try to create a project that they would be interested in and they would care about. I think that's the most important thing.

00:35:57 And even if you just build one really killer project for Meta, I think that would be enough. But the way that I set it up in my Accelerator bootcamp is okay, more projects doesn't equal bad as long as you're not spending a ton of time because the other thing that people trap that people fall into is like, "Oh, once I get five... I have a SQL project and I have an ETL project, and then I have a dashboard project, then I'll start applying for jobs." And I think that's a trap. So my advice is progress over perfection, just focus on getting steps in the right direction and not being a perfectionist, but if you can have a project in multiple different industries covering multiple different tools, maybe one Data Viz, if I had to answer this with a lot more succinctly than I have already, I would say one SQL project, one Data Viz project, that alone is a good place to start, but the more the merrier a lot of the time.

Jon Krohn: 00:36:54 Nice. Perfect. That's exactly the kind of guidance I was looking for. That's a bit trickier for me thinking about these kinds of roles like a data analyst role. That's perfect. SQL project, a Data Viz project, that makes perfect sense. That's really cool. Related to what you were saying about people picking projects that they're excited about, you've emphasized in the past in content that you've created that if you're a data professional, you should try to live your life a little data-driven.

00:37:20 And so this is related to projects potentially in terms of your portfolio, but also maybe even just more generally, maybe even to see if you are thinking about transitioning from the lab or whatever you're doing right now into a data career and you actually haven't spent that much time digging into data, you could find something in your own life, so you, for example, you've talked about analyzing your hikes in Power BI, tracking your dog's steps with a Fitbit.

00:37:48 And so these kinds of ideas, they could tie into somebody's portfolio project directly, you could create a SQL database of your hikes or something and do a Data Viz of your hikes, any of those kinds of things. That actually sounds like a pretty cool, you could have some good visualizations of GPS data or something in some kind of geo mapping framework in R or Python. You probably don't have people learning R these days. I'm thinking about me getting started in data 20 years ago. So yeah, so I think that that's an interesting idea there. Do you have any other... I see you're nodding your head a lot and you've now done a big inhale, so I'm sure you have things to say.

Avery Smith: 00:38:30 Well, it's actually funny because yeah, I'm all about personal projects. I think if you can make, like I said, I think the biggest thing when creating a project is actually finishing it, and you have to be motivated. And I think if you can do something around your life, you're going to be more motivated to finish it. When I first built my bootcamp in 2021, I actually built it all around another, I guess acronym, PPP, personal portfolio projects. And I was like, everything I taught was tied back to doing a project in your life. So for instance, when we learned dashboarding, I taught Google Looker Studio because it was free and I liked it. But anyways, we would create a dashboard of our screen time, how much time we spent on our phones and the different apps and stuff.

00:39:15 And then when I taught Python, I introduced the Spotify API and we analyzed what music we listened to and it was super fun. But the problem with personal projects a lot of the time is the data collection can be really hard. It's a lot harder to, especially Apple doesn't want you to know how much time you really spend on your phone, so they don't let you export it, so you have to manually do it. So personal projects can be really meaningful and really cool on a resume, but they can also be more time intensive. So

it's a trade-off there because hitting download on a CSV and throwing it in Tableau, that takes a lot less time than manually doing all this effort. So I'm a huge fan of personal projects, you just have to be careful that they don't take up your entire life. And then one related note I'll say on that is if you're in a role right now that has nothing to do with data, just trying to start to think a data professional, even if you're not even doing any analysis, I think can be really cool.

00:40:14 In one of my last episodes of the Data Career Podcast, it was with one of my students, her name was Jen Hawkins, and she was a delivery driver. And a delivery driver has to be one of the least data analysty roles you could have, right? You're not a computer, but she was like, when she had to get into a gate coded community or a gate coded apartment building, she would have to send text messages to the recipients and she was thinking, "I'm going to A/B test my copy and see if that lets me get a higher success of getting in or gets me in faster." There was no analysis, real analysis statistically of this data. But that alone I think makes a great bullet point. And she was so good at this that people, when they look at her LinkedIn, it looks like she was a data analyst in this role, she said like A/B testing marketing messages. That was basically her bullet point for this role. She was texting people to deliver packages. But if you can have just an analytical mindset, I think one that's going to make your job more enjoyable now, but two, it's going to make great bullets for your resume and give you experience.

Jon Krohn: 00:41:27 I love that story. And it also gives us a great opportunity to talk about your podcast. So your podcast is called the Data Career Podcast: Helping You Land a Data Analyst Job FAST, and it's very popular. It's at the top 1.5% of podcasts globally, which is extraordinary for something that is targeting a relatively small niche. There's a lot bigger audience out there for murder mysteries than

people trying to land data analyst jobs. And so congratulations. That's fantastic. You have, I guess that episode was 156 that you just mentioned?

Avery Smith: 00:42:02 Yeah, probably.

Jon Krohn: 00:42:03 If it was the most recent time of recording, so that would've come out April 15th. And you've had some amazing well-known data analysts on the show. People like Sundas Khalid, which is a great story, high school dropout immigrant, and now a powerhouse in data at Google. Daliana Liu, who is an amazing... She's actually... she was a data scientist at Amazon, but now she's a full-time content creator helping people make a career in data science and she hosts the Data Scientist Show, which is also a podcast, a popular podcast out there. So some great guests, and actually you have one of my favorite all time guests on this podcast, Cole Nussbaumer Knaflic. She is, I mean, she's an expert in data storytelling and wow, is she ever an amazing communicator?

00:42:54 The whole episode with her, I was like, "You're just..." I don't know, jaw drop, like, "Wow, this person is blowing my mind instant after instant. You're just so good at telling a compelling story." Anyway, so you've had her on your show as well in January, episode 142. So great podcast for people to be checking out. It looks like you also do episodes where, kind of like this podcast, so we always do episodes every Tuesday, every Friday or Tuesday episodes always have a guest. Fridays sometimes do, but Fridays also often are just me solo digging into a topic. And it looks like you do those kinds of episodes as well, shorter and appears to just be you in those.

Avery Smith: 00:43:33 Yeah, I try to alternate between, if we look at a month, two episodes are usually me probably talking about something I feel like is important. And then we have two

guest episodes. This is how sometimes is, I try to make it this way. One's usually more of someone who just transitioned, went through an interesting transition. So for instance, we had Jen, she was a delivery driver and turned into a data analyst. I've had a music therapist, which is a role I didn't even know existed. I had her on to talk about how she landed a financial analyst job. I've had some construction workers talk about how they landed an analyst job. And then the other time we try to have maybe more industry experts, like some of the people you mentioned. I've had Alex Freberg on their, Alex the analyst. StatQuest, Joshua Starmer, who is awesome. So yeah, typically that's how the episodes go. A little bit of solo, a little bit of guests.

Jon Krohn: 00:44:29 Nice. Yeah, Josh Starmer has also been on this show, and he is extraordinary. I mean, now I think he's at one and a half million YouTube followers for his StatQuest channel. He's been more recently publishing fun books as well. And just like Cole Knaflic, just a fun, super knowledgeable, great communicator of a guest. Do recommend people to check out StatQuest on YouTube for any concepts-

Avery Smith: 00:44:55 100%.

Jon Krohn: 00:44:55 ... that you want to be learning, bam, you'll learn them. So yes, I've managed to completely go off track of any kind of plan structure that I had now talking about your podcast, but it's such a-

Avery Smith: 00:45:08 Well, I appreciate it. I appreciate it.

Jon Krohn: 00:45:09 Yeah, it's a great one. So I think we were, prior to me getting into that, we were talking about projects and what people can be doing, of course to prepare for early roles. Now, there was something fun that we pulled out from our research for me personally, because you were talking

about how some specific skills like linear algebra and calculus aren't the kinds of things that you need for an entry-level data role. And that stood out to me amongst our research as something that was funny for me because it's absolutely true. But I also, in recent years almost... I mean, I do also create some kind of LLM content. More recently I am into Agentic AI content as well. But a big part, certainly two, three years ago, and I've got to get back into it of my content creation was around linear algebra and calculus.

00:46:01 But it's absolutely right, I mean, if you are looking for a financial analyst job at a bank and you're going to be mostly working in Excel, you don't need to be doing my linear algebra and calculus content first, it's not going to be helpful. It could be helpful... I envisioned in my head that the primary target audience for my content there, it could be somebody who, they already have some technical experience, they're already a programmer now they're looking to get into data science or AI or maybe they've actually been in data science for a while, but they've mostly been using high-level abstractions, just using Matplotlib, PyTorch Lightning in this really abstract level. And they're like, "Wow."

00:46:46 And for me, actually, the reason why I got so big into linear algebra and calculus is because I had a colleague at both the company that I co-founded, Nebula most recently, and he worked with me at the company before that, untapt, his name is Vince Pataccio. Vince, he has such a strong command of linear algebra and calculus, and it ends up making a big impact on the models that we build, on the way that we engineer products into production, it ends up having a huge amount of value because he's constantly thinking about things in these lower-level terms and coming up with optimizations, clever tricks for having models work better or deploy much more efficiently in production.

00:47:25 But anyway, you can even tell by the terms I'm using, this isn't relevant for all jobs. And so I am getting to a question, I'm meandering my way and I can tell that you have things to say. But the last thing that I want to say here is that to specifically tie this into a question is you've talked previously about how you don't value... In fact, actually the quote here is, "I hate theory." That's the quote. I was looking for this in the research. And so you lean into application-first learning. So how do you help students build enough conceptual understanding to adapt to new tools or methods without dragging them through dry theoretical lessons?

Avery Smith: 00:48:05 It's hard. And I don't know if I do a perfect job at that. I personally learn best by doing stuff and by taking action and then figuring out the theory along the way. But that's probably not how everyone works. It's just that's how I try to learn. And that's how I try to teach is let's get your hands dirty, and once it's dirty, you'll understand the theory a little bit more. So I do try to be really hands-on and really practical upfront, and then we'll try to learn the theory as we go.

00:48:39 Once we get stuck or we encounter something, I think that's maybe when I theory a little bit more, it's like, "Okay, this is why this happened and this is how to prevent it down the road." I feel like theory is for me, I guess I don't have the foresight to be like, "Where is theory valuable? This is going to be useful down the road." It's more like I'm in the exact moment, I'm stuck in the mud and it's like, okay, I need theory to get me out in that moment. So that's how I try to teach and that's how I learn best.

00:49:06 And then, yeah, just going back to the linear algebra stuff, I think if you're a financial analyst, you're probably not using a ton of linear algebra but maybe you want to go from a financial analyst to a data scientist or you

specifically want to work with natural language processing, that's where linear algebra becomes more important. And I think there's definitely a place for linear algebra and calculus in the data world. I don't want to make it seem like I'm anti-math. I definitely see room for it and there's definitely places for it.

00:49:39 But I guess my point is when you're getting started, and maybe you'll be really happy with a data analyst job that pays $75,000 a year, don't let linear algebra and calculus be the thing that's standing in the way of that.

Jon Krohn: 00:49:53 It makes perfect sense. We're in complete agreement. No resistance from me on that one. Let's talk a bit more about when somebody is thinking about transitioning into a data analyst career, what should their expectations be around timeline? I mean, obviously there's huge, this is how long is a piece of string question, but right from the outset of this episode, we've talked about how people should be applying probably before they think they're ready. So you've said, "My thesis is you don't have to wait that long. What is the bare minimum to get someone their first data job?" And so yeah, what's the point where people are just enough, they have just enough experience with the tools and the skills that they need to have that they can start not just applying but actually get hired?

Avery Smith: 00:50:42 I feel like this is a controversial question because it obviously depends on how much time you're putting aside. For example, if you put, let's say two hours a day, obviously you're going to be ready faster than if you're putting in two hours a week. What I try to do with my students, I think it's really possible if you're spending let's say two hours a day on average, 14 hours a week, I think it's possible to be 100% prepared skill-wise in about 12 weeks. Then the job application process, I mean, I think you should start applying for jobs early once you're six

weeks in, maybe four weeks into learning, that's my approach.

00:51:26 But often it takes a while to get, actually to get hired, but I think I have people do it in under a hundred days quite often. Now I have people do it in over a hundred days quite often too. It also depends on circumstances. For instance, if you want a remote job right now, I did some analysis, I don't know if you've looked into this specifically for... Let's see, I was looking even at data scientists and data engineering jobs. For all data jobs, do you want to take a guess on what percentage of those jobs are remote? Would you wager?

Jon Krohn: 00:52:00 I haven't looked at this in recent weeks, but I'm guessing fully remote, it's probably about 10%.

Avery Smith: 00:52:07 That's a great guess. Yeah, it was 15%.

Jon Krohn: 00:52:10 I almost said 15.

Avery Smith: 00:52:12 But if you ask people would you rather have a remote job or an in-person that's going to be well above 15%, that's going to be like 75% probably at a low end. So you have a really interesting supply versus demand. Everyone demands to be remote, but there's not a high supply. So if you want to get a remote job, it's going to take you longer. So it also depends on your circumstances.

Jon Krohn: 00:52:37 Something that I love about your approach to applying for jobs, we haven't talked about this yet, is that you say people often give up too early in the job hunt and that they need to "apply like a scientist." So tell us about that, how you can turn your job hunt into a testable data-driven process.

Avery Smith: 00:52:58 Well, I think I'm going to go to, I don't know what number it is, it's probably episode in the 90s. I did an interview

with a guy named Rho Lall who's a data professional here in Utah, and he actually turned me onto this where he was A/B testing his resume where he was applying for jobs and he'd take one thing on his resume and he'd change it and maybe apply for 10 jobs, and then he'd change one thing on his resume and apply to 10 more jobs. And I think it's really easy to just get in the habit of hitting apply and expecting a rejection and just being like, "Oh, my life sucks and it's hard to get a job." And it is hard to get a job, I don't want to take that away. But I think there's things that you can be doing to make it more data-driven.

00:53:41 For instance, like A/B testing your resume. For another example, I have all my students use a job tracker, and so that way when they come to me and they're like, "Hey, I've applied to jobs but nothing's working." I can be like, "Well, how many jobs have you applied to? How many are you applying for every week? What platforms are you sourcing the jobs?" So for example, I had a student, one of my graduates in my program who hasn't landed a job yet. I looked at her job tracker the other day and I saw that 75% of her jobs that she's applied for are on LinkedIn jobs, and I'm a fan of LinkedIn jobs, but it's not working for you, so let's try some other platform. So just things like that, you can actually have... If you're going to be a data professional, why not take a data approach to the way you're trying to land a job?

Jon Krohn: 00:54:25 LinkedIn jobs has a lot of reach, which is nice for people posting in there, but you end up typically getting hundreds of applicants for a single role, and it is not a good tool for being able to easily sort from the hiring manager's perspective. So-

Avery Smith: 00:54:45 It's terrible.

Jon Krohn: 00:54:46 Yeah. So it ends up being, most applications that people make on LinkedIn are going into a black hole. And something that's really annoying for me is that at Nebula, the startup that I co-founded I've stopped working there day to day since Friday to focus on a new company of mine. But we built an amazing model for automatically ranking candidates for jobs, and it was really frustrating to... So I mean, we could export profiles and then use our own API to rank, and then all of a sudden using all those applications that have come in through LinkedIn is so easy because you can sort from most relevant to least relevant, which yeah, it's wild that they haven't figured out how to do something, at least anything. It doesn't need to be as good as what we had at Nebula, just anything would be better than what they have. It's crazy.

Avery Smith: 00:55:47 So this is controversial too. I actually posted a job on LinkedIn a while ago, a data analyst role for testing purposes, and I said that in the job description, I tried to make it as clear as I possibly could. I said, "Don't apply to this job." I just wanted my bootcamp students to apply because I wanted to experience what it was like for a hiring manager in that moment on LinkedIn to post a job. I said, "Do not apply," in the job description. You want to guess how many applicants I got in like 24 hours?

Jon Krohn: 00:56:17 200.

Avery Smith: 00:56:18 500, and it says literally, "Do not apply," multiple times. Anyways, but the job got taken down by LinkedIn but I still have access to all of the data and the way ranks candidates. It makes no sense. And the amount of information it gives you on those candidates, it's so hard to see. So I agree, it's crazy that that platform has such a big share of the market.

Jon Krohn: 00:56:41 I know it's wild. And it also, they've been... their slow moving nature has, I think, done them really well in the

social media world where every other platform out there has changed so much and lost the things that people join those platforms for in the first place. Facebook, Twitter, and LinkedIn has been the beneficiary because it hasn't changed in 20 years. And people, I think just like that consistency, I don't know if that's a feature that they deliberately set out to do, but by never changing, I think it's been great for how much people want to stick with them because you're not constantly having to adapt to like, "Oh, now it's just reels all the time over here. That's not what I came here for."

Avery Smith: 00:57:25 Yeah, I could go on and on about some of the interesting choices that LinkedIn makes, but yeah.

Jon Krohn: 00:57:32 Okay. I'll save you from that. So as I mentioned earlier in the episode, I posted that you'd be on the show because you have a huge audience, 140,000 followers on LinkedIn, 36,000 on YouTube. It'll probably be more in a month when this episode is published. It'd be really weird if it was less.

Avery Smith: 00:57:56 Yeah, something would've gone wrong. Hopefully not.

Jon Krohn: 00:57:58 Exactly. Yeah. Oh, and I just noticed I made a typo that I'll have to correct because I copy-pasted from the previous one, and so there's... mostly, it says Avery Smith, but at the very last time it says, "Andre's episode will likely be 89... and released on May 20th." We'll see [inaudible]

Avery Smith: 00:58:14 I didn't notice that when I read it, so don't worry.

Jon Krohn: 00:58:15 Andre, Avery, almost the same thing.

Avery Smith: 00:58:17 Pretty close.

Jon Krohn: 00:58:19 But we did have a great question come through from Wade Ashby, who is a regular listener and regular interactor on this show, and he's the dean of online education and an associate professor of computer information systems at Howard Payne University in Brownwood, Texas. And Wade Ashby says, "For people getting into data science careers, what's the best thing they can do to get noticed, and is there anything they should avoid that employers can count against them?"

00:58:51 So part of that question, the first part around the best thing that they can do, we might... If anything comes to mind that you feel like we should say, but I feel like kind of those things, networking, portfolio, having the right skills, we've kind of talked about those in this episode. Feel free to chime in with another best thing if you feel like we haven't covered it. But the second part of that question we haven't at all, which is there anything that people getting started in a data career should avoid that employers would count against them?

Avery Smith: 00:59:17 That's really interesting. I think if we go to projects and portfolios, there are some projects that I think you and I would probably both agree that if we saw those projects, we've seen them a million times and we discredit them, maybe not entirely, but if you just do normal, the Titanic data set and see where people make a prediction model, whether people survive or not based off of their socio-demographic stuff, that's probably done a little too often. So that's probably the first one. And then maybe for image recognition, the MNIST dataset, just classifying handwritten numbers. That's probably not enough to land a computer vision job.

01:00:05 So maybe just really basic projects, but really the Iris data set, the Titanic dataset, the MNIST dataset, and then if you're data analyst, the, I almost said the stupid, I don't want to say the stupid, but the silly city bike sharing

thing that the Google cert has you do at the end that they call a capstone project, that I don't really a hundred percent agree that it's a full capstone project. Those ones have just been done by probably literally millions of people. I think if a project's been done by hundreds of people, I think it's fine. But some of those datasets that are maybe just have been used millions of times, probably just lack the luster that they once did.

Jon Krohn: 01:00:42 Nicely said, agree 100%. I mean, it ties into the opposite of what you just said is something you have said a number of times in this episode, which is that your project should be about something you're actually interested in. Yeah. So using the same demo data that everyone has been using already is not going to cut it.

Avery Smith: 01:01:02 Can I add one more that is controversial that I often repost this on all of my social medias because it just gets the comment section going and it's a fish frenzy? I say something kind of controversial and I'll get your take on it. I say that GitHub is not a portfolio, and I actually think that that's maybe something that you could fall into as well is saying you have a portfolio, but it's just your GitHub. And really I say that just because I think it's interesting to think about that perspective. I don't 100% believe it, but I will say this, that GitHub recognized that people are using GitHub as a... And I'm specifically talking mostly about data analysts to be honest, but GitHub recognizes, "Oh, people use this as a portfolio. This is not really how we built the tool originally."

01:01:47 And so they come out with GitHub Pages, which is essentially their portfolio product. The other thing is I think you can have your GitHub be your portfolio, but you have to just really be conscious of it because GitHub was designed to be a code repository that makes it easy to work as a team. And so you just have to.... By default, it's kind of ugly and messy. You just have to want to make it

look good because hiring managers or recruiters are going to spend 10 seconds on your portfolio to start. Once you've gained their trust and their admiration after those 10 seconds, they're going to spend 60 seconds. You just don't want us that first 10 seconds to be wasted with a 25% filled out GitHub that's been committed to maybe once every other month or something like that.

Jon Krohn: 01:02:34 For sure. And you can end up, it's so easy to have your GitHub profile be filled with other people's work.

Avery Smith: 01:02:40 That's true.

Jon Krohn: 01:02:41 You can just be saving forking other projects. And so it can mean that as a hiring manager or recruiter. Yeah, I agree with you 100%, just looking at someone's GitHub and trying to tease through like, "Ah, it doesn't look like they actually did anything in this repo here. They just forked it." And you don't want them to have to be doing any of that, as you say. And so it seems to me to make a lot of sense. I don't know what you do recommend, but it popped into my head that standing up a website is pretty easy. You don't need to actually have a JavaScript HTML website. You can use Squarespace and click and point to create a simple website, host your portfolio there.

Avery Smith: 01:03:17 Yeah. In fact, that was one of the mistakes I made when I made my portfolio. I just set it up in GitHub pages, which uses Jekyll basically and Markdown to build a website. But even then, I think that's overkill. I think Squarespace or there's a Carrd with two Rs is really easy to set up a website. So I think that's a great start.

Jon Krohn: 01:03:37 Nice, great tips there. Very practical episode. This has been a really fun conversation, Avery. I expected nothing less, given everything I knew about you online. It's been so awesome to have you on the show. Before I let my guests go, I always ask them for a book recommendation.

Avery Smith: 01:03:52 In terms of books, I'm super basic and I'll recommend two. I'm sure this has been recommended before and I'm sure a lot of people have read it, but there's still a subset of human beings that haven't read it. And that is Atomic Habits. I love Atomic Habits by James Clear. I've probably read it three times and every time I read it, I think, "Man, how do we as society still not reach our goals?" And I'm like, "I'm in every goal that I've ever created." And then six months later go from me not reading it. I'm like, "I forgot everything in that book and I'm not actually doing anything that I said I was going to do from that book. So it's probably time for me to reread it again now." So I really like that book.

01:04:29 And then I like self-help books. So another one that I really like that is newer, I don't know if you watch a lot of YouTube. I like YouTube a lot. So there's a guy named Ali Abdaal on YouTube who went from being a doctor in the UK to becoming basically a YouTuber and a productivity expert. And he wrote a book recently called Feel-Good Productivity. And the title makes it sound like it's how to be productive, and that's what it is, but it's more like how to just be happy and enjoy your life while getting stuff done without being stressed out and miserable and just more lighthearted I guess. And I find it quite tangible and applicable if there's not a whole lot of theory. I mean, there is theory. He talks about studies and stuff, but a lot of how to apply the studies.

Jon Krohn: 01:05:18 I love that. This could end up being a really great book for me because this is definitely... this is a trap that I'm constantly getting into is there are an infinite number of things that I would love to be doing with my time. And when I'm on the show, I'm usually in a really positive good mood, but that's like I am deliberately resting around being on air. I know that I'm going to be recording for 90 minutes and need to have the high energy, but the rest of my day is not necessarily like that. A good chunk

of the rest of my day is not like my on-air personality where I'm like, "Man, there's all these things weighing on me. And yet another..."

01:06:03 For example, something that really weighs on me, we were talking earlier about my linear algebra and calculus content. I, five years ago started creating this series of linear algebra and calculus videos for YouTube, and it's part of this big machine learning foundation's series that first big chunk, it's like a hundred videos on linear algebra or something, and then a hundred videos on calculus... Or maybe it's 50 of each, actually, that sounds right. But then there was also supposed to be 50 videos on probability and statistics and another 50 videos on data structures and algorithms.

01:06:38 And I managed to... Pearson, the publisher, they paid for me to go to a studio and record all of this content on weekends and then have it professionally edited. And so for Pearson, the publisher, so in the O'Reilly platform, people can access all of that content. But I committed, I got a special carve-out because I wanted anybody in the world to be able to enjoy this content for free if for whatever reason they couldn't afford or get access to the O'Reilly platform. And I got... It took me two years, it was a video a week, which is why now it was a hundred total.

01:07:17 So 50 linear algebra videos, 50 calculus videos took me two years to do that recording by myself at home. And three years ago, I just got too busy and I stopped, and it's obvious, it's like this big... So for both YouTube as well as a Udemy course that I created that has all the YouTube content in it that just kind of stops three years ago. And I'm like, "Man." It constantly, every day it eats at me, myself.

01:07:43 But then on top of that, I get LinkedIn messages, YouTube comments, emails from people that are like,

"Dude, it's been three years. When is this going to continue?" And I'm like, "I'm going to get to it soon." And so anyway, my point is there's a lot of things and that more than anything weighs on me as something that I haven't been getting done. And so something like this book Feel-Good Productivity, I'm excited to read it.

Avery Smith: 01:08:10 Yeah, you should. That sounds like that's a problem that would be addressed in the book is how do we make this thing fun again, I guess.

Jon Krohn: 01:08:19 Yeah, with the podcast, it's easy. I guess I'm just more extroverted as opposed to... I don't really enjoy... I've written a book, another thing that I'm supposed to be doing is writing the book on all this math content, but I definitely... The podcast is easier for me to enjoy because I love just being able to chat to Avery Smith for 90 minutes. Like, wow, that's a real highlight of my day. Sitting alone writing for 90 minutes, it doesn't have the same kind of... But anyway, I'm sure there's tricks, just like James Clear in his Atomic Habits book has lots of tricks, rewarding yourself at the right time after you do something, starting with small steps. There's all kinds of ways that I could make sitting and writing fun again, I'm sure.

01:09:04 And yeah, the Atomic Habits book is great. I've known James Clear as a friend for about 15 years. So I met James Clear on a bus in 2013 in Switzerland. We happened to sit next to each other and just connected. At that time he had recently started his newsletter, which ended up becoming more about habits and productivity, but in the beginning it was about scientifically-backed ways of making... I mean, it is I guess kind of tied to habits and productivity, but it could be hacks that are scientifically-backed, life hacks. And so the example that he gave me on that bus was something like, "Everyone knows that if you have a smaller plate, people put less

food on it. But there are also studies on the color of the plate."

01:09:51 And I can't remember what he said, but something like a brown plate or a green plate or a blue plate, people put less food, so that's a effortless thing. You can have 10% fewer calories in a meal by having a blue plate or whatever. So yeah, he just started with that concept, but he was really great about listening to his audience, seeing which blog posts, which newsletters were most popular, and then got more and more into writing about habits and productivity, and eventually had half a million followers on his email newsletter. So then was able to get an amazing book deal with Penguin Random House.

01:10:23 And then really the key thing was obviously it's a very well-written book, I think he redefined the way that self-help books are written because most self-help books are so light on content. It could really be like a blog post, and they've stretched it out with a bunch of stories and repetition, but Atomic Habits, because it's taking his seven or eight years of twice-weekly newsletters and compressing all of that knowledge into a coherent book, it is packed with information, and so it doesn't dumb things down like self-help books really do. So I highly, highly, highly recommend the book. And so not only was a great book, but a big thing was his marketing. So he did 200 podcast appearances in the six months around his book launch, and it was systematic. He wasn't just showing up on random podcasts.

Avery Smith: 01:11:23 Yeah, those are great.

Jon Krohn: 01:11:25 Anyway, I ended up tailgating on your items, but hopefully some interesting things in there. Really looking forward to reading Feel-Good Productivity. Avery, it has been awesome having you on the show. I've learned so much. People, if you're looking to get started in a data

career, obviously the Data Career Jumpstart program platform that you have, as well as the Data Career Podcast, invaluable resources for people getting going. Where else should people be following you, Avery?

Avery Smith: 01:11:54 Yeah, I think most people probably are consuming this via YouTube or podcast. So I'm on there on any podcast platform, Data Career Podcast. On YouTube, just my name, Avery Smith, and then if you type in data, I'm sure you'll find it. And then I'm on LinkedIn, like you mentioned, 140,000 followers over there. Just my name, Avery Smith. And then I'm on Instagram and Threads and other places as well. So if you have any sort of social media that you enjoy, I'm probably there.

01:12:23 I've been recently putting my newsletter over on Substack, so I'm trying to be everywhere at once, but you're probably listening to YouTube or Spotify or Apple Podcast, so I'm over there. So I would love to connect with any of your listeners and yeah, thanks so much, Jon, for having me on. It's actually interesting because I remember listening to this podcast... Oh man, I remember listening to this podcast in 2021 at least. So four years later, it's fun to be a guest.

Jon Krohn: 01:12:50 It's an honor to have you as a listener, an esteemed listener out there, and so great to have you on the show. It was so much fun. Maybe we can check in again in a few years and see how your journey's coming along.

Avery Smith: 01:13:02 Let's do it. I'll see you in four years or something.

Jon Krohn: 01:13:05 Nice. So fun having Avery Smith in today's episode. In it, he covered the Every Turtle Swims Past, ETSP Learning Ladder, that's Excel, Tableau, SQL, and Python as a strategic path for beginners to enter data roles. He talks about his SPN method, Skills Portfolio Network for Landing data jobs with networking being potentially even

more important than skills. He talks about how to create meaningful portfolio projects that showcase your abilities and personal interests instead of using overused datasets, the value of an anti-goal approach to career transitions, focusing on what you don't want as motivation, and why applying for jobs should be approached like a scientific experiment with data tracking and A/B testing. And finally, the importance of creating a proper portfolio website beyond just using GitHub repositories.

01:14:01 As always, you can get all the show notes, including the transcript for this episode, the video recording, any materials mentioned on the show, the URLs for Avery's social media profiles, as well as my own at superdatascience.com/893. Thanks to everyone on the SuperDataScience podcast team, our podcast manager, Sonja Brajovic, media editor, Mario Pombo, Nathan Daly, and Natalie Ziajski on Partnerships. Our researcher, Serg Masís, writer Dr. Zara Karshay, and of course our founder, Kirill Eremenko. Thanks to all of them for producing another great episode for us today for enabling that super team to create this free podcast for you. We are deeply grateful to our sponsors. You, listener can support this show by checking out our sponsor's links, which you can find in the show notes.

01:14:45 And if you would ever like to sponsor an episode yourself, you can find out how to do that at jonkrohn.com/podcast. Otherwise, help us out by sharing this episode with people who would like it. Review the episode on your favorite podcasting platform. Subscribe obviously, if you're not a subscriber, but most importantly, just keep on tuning in. And I'm so grateful to have you listening and I hope I can continue to make episodes you love for years and years to come. Till next time, keep on rocking it out there, and I'm looking

forward to enjoying another round of the SuperDataScience podcast with you very soon.