



# PINAYS TALK TECH PODCAST SERIES

## AUDIO TRANSCRIPT

[00:00:00] Renee: Hey, everyone. This is Renee from Accenture in the Philippines. Welcome to another episode of Pinays Talk Tech Podcast, the podcast for future forward Filipinas. Join us as we have inspiring conversations with Pinays in tech from young innovators to the industry leaders, this podcast will show you how Pinays in tech are leading through change. This is Pinays Talk Tech Podcast.

[00:00:28] Renee: Data is only as good as the questions you ask, but what is data exactly and what are the opportunities in this space? To help us get answers, our guest for this episode is a female tech leader who will shed light on what a technology consultant really does in data and the opportunities for both technical and functional people.

[00:00:51] Renee: Our guest is currently the head of Data in GCash. Let's welcome Sara Venturina. Hi Sara, welcome to the show. How are you doing?

[00:00:59] Sara: I'm good. Hi, Renee. I'm happy to be here.

[00:01:03] Renee: Yeah, I think we've been talking about you, joining my podcast for months, right?

[00:01:09] Sara: Yeah.

[00:01:09] Renee: Finally. Finally here. I'm so excited. It's one of the top topics still. I mean, data's been around for a while, but it's still the top topics that people ask us to do. Before we proceed further, can you let all the listeners know who is Sara Venturina and what do you do in data?

[00:01:29] Sara: Okay, so what do I do? So right now, I actually head up a data office inside G-Cash. And what it means is that the things that you can do with data, whether it derives insights so that we can do recommendations or solve business challenges or business problems with machine learning use cases, or even create data products, those are the things that we take care of.

[00:01:51] Sara: I've been in this field for a long time, about 23 years. Even before it was called data science or AI/ML, right? And I've seen the evolution of how data has been used and it's being used by different companies and organizations to really provide value as a strategic asset and a competitive advantage.



[00:02:14] Renee: A lot of like words there that people may not be familiar with. And I wanna bring it home to people who don't really know anything about data science. For example, when you say insights, can you give us a business, if it's possible, a simple business problem that you can solve with data?

[00:02:31] Sara: Yeah, so simple business problem, right? The fact that... and this is something that some organizations sort of like overlook 'no? Even just getting timely, accurate reports on the sales. Sales information for some organizations to get that in a timely basis. For example, every morning when you go to the office, you have your numbers ready for you, let's say sales as of yesterday. And then you see, for example, the trend over time, or let's say your daily sales report or monthly sales report. So even as simple as that, the use of data in terms of showing what has happened in the past can already give you some insights.

[00:03:10] Sara: For example, do you know that... for example, you can say, "Oh, I have done well this past few weeks compared to the last month, I should continue doing that." Or, "Maybe I should change something because suddenly my sales dip." So that's a very simple thing. And even that simple thing sometimes takes a bit of a challenge to make sure it happens, right? How do you make sure that the data is accurate and timely? When you get to the office in the morning, it's available, right? So that's one simple area where we have data and its availability to you, to the management to be very helpful already.

[00:03:47] Renee: Right. Because in the past, without these analytic reports, anyway, they would get that maybe a month later. And then it's very hard to pivot, right? And I know it's cliché, but one has to say it. Data is the new oil. When oil was the new gold, right? No business can run business without data at this moment. Now, tech is a very, very wide field. How did you get here? Like you said, you've been here 23 years. If that was a child, that child already is working.

[00:04:22] Sara: I know.

[00:04:23] Renee: And has their own life, so...

[00:04:25] Sara: I know.

[00:04:26] Renee: So how did you get into this field? For those who are interested, 'cause I think this is one of those careers that would... now, that it's really here, it's unending. It's never gonna go back to what it was before. So how did you get here? What's the story?

[00:04:40] Sara: Okay, you're right, Renee. You know, at this point, today, now, it is very, very important. So when I started, I graduated BS Statistics in UP, 23 years ago, so that is 1999. So, it was a time where when I graduated there isn't much data. Like when we finished university, we were thinking, "Okay, so what do we do next? Do we just all go to the National Statistics Office?" 'Cause that's where the quote, unquote 'data' is at the moment.



[00:05:11] Sara: I'm not sure if you were alive or can recall, but at that time, what do you call this? The internet was just starting. The internet was just starting, mobile phones was just becoming a thing, a mainstream thing, so there wasn't much data yet until the internet really became mainstream. Web 2.0 where a lot of companies would do business online. And that's when really data started to come in.

[00:05:39] Sara: For a lot of data, people to have a career in this field, right? So I got into it because when I was studying statistics, I really didn't know why I went into statistics. I just followed my mom's advice because she wanted me to become an accountant.

[00:05:58] Sara: But I remember joining my junior year when we started talking about regression. And I like the idea about how you can have data to be able to explain other data points and you can predict stuff. Sounds very magical. With this data point, I can predict something else. If I know, for example, the size of a house, the location, I can predict its price, for example. So it became very interesting for me. And of course, Renee, when I graduated, I thought I really wanted to do this.

[00:06:32] Sara: And during my first job, I remember seeing customer analytics as a thing as opposed to CRM operations. There's also CRM analytics. And then it talks about segmentation or getting to know your customers better with the data. And from that you can actually profile them and offer them the right product. Or you can predict who are more likely to buy something, or you can predict who will churn or leave or stop using the service, right? So all of this got me excited and I really wanted to be in that field. I really wanted to be doing that.

[00:07:10] Sara: But unfortunately, as I mentioned, right, not many companies are really doing that yet at this time. It was a time where ERPs were quite big. Like a lot of companies are automating, they're operations from manual processes, they're automating it and building databases, warehouses. So, I've always wanted to be in this field. But at that point, there wasn't enough data. So I started to do a lot of things around data. Warehousing, creating reports.

[00:07:41] Sara: Until I got my big break of really doing predictive analytics, this is when I use the data to be able to predict something rather than just describing what has happened.

[00:07:52] Sara: And that was early 2000 and I moved to Singapore to do a lot of it. So I spent eight years in Singapore mainly doing this. Yeah. Doing predictive analytics at that time. We call it data mining. You know, data science wasn't a word yet that people used to describe this type of work really around predicting churn, predicting propensity, to pay, to buy, fraud.

[00:08:19] Sara: So, yeah. So I really would just try to get my hands on different industries or different work. Any project that would land on my plate as long as it's around predictive analytics, I will do it, right? So I did that over a long period of time.



[00:08:36] Renee: And I think and just to bring it home to people who are listening, the predictive part of it that fuels people earning money. For example, in Facebook, the reason why they track all your likes and they show you the things you like because they're now able to predict that, "Hey, Renee seems to like all these news about Drag Race Philippines so I'm gonna show her different drag race Philippines stuff. And then when I show her that, I'm going to show her ads related to Drag race Philippines." And if you are somebody who likes something a lot, the chances of you buying merch related to that would skyrocket.

[00:09:15] Renee: And that is the difference from before. If you look at the newspapers, everybody will see the same ad. It doesn't matter if you're old or if you're young. The power of the internet is if you show an ad on the internet, the probability of you buying something because we know you like it is very high.

[00:09:32] Sara: Yes. especially nowadays, everything we do translates into our data point. Into our data behind the scenes. You know, from the moment we wake up, normally all of us will reach for our phones. And then what? Look through social media, even the way you scroll that gets captured really even before you buy something. If you just click to show interest, it also gets captured. So a lot of things is really translated into data for people like in this field to really analyze and try to make something out of it.

[00:10:08] Renee: A lot of the data scientists I know are not in social media.

[00:10:13] Sara: Yes.

[00:10:16] Renee: There's inherent cause they know how it's being used. So they're a bit more careful. And one thing that's related to this Sara that I've always been interested in is the ethics of using the data. Because the companies are so under fire because of it, right? And there's a difference between... The data is the data. the data doesn't lie. But then again, the way that you use data, the ethical data storytelling is difficult. So what are your thoughts about this and in the industry at large, what do they think about ethical use of data?

[00:10:52] Sara: So the first part around ethical storytelling. I often say that we have this super power and with great power comes great responsibility. Because it's really true. I mean, for people who could understand what the data is saying, and because you are sort of maybe influenced or to present it in a certain manner, right? So we have to be careful about how we communicate what the data is telling. And in some people, you can tend to exaggerate because it's both an art and a science. And sometimes the art part is more. So there's really sort of like considerations we have to take into account when we try to tell a story when it comes to data, right?



[00:11:36] Sara: Even misleading charts, right? You show something bigger, but actually, the percentage is not as big. It's not proportional. Something like that. It's really something that... Actually, we could not stop, we will not be able to stop people from abusing how they tell data, but maybe what you should do is to educate more people on how to try to understand the data. Of course, anyone who is working in this field and wants to be ethical, we put in place, caveats, our assumptions. We clarify why we say this. And we try to avoid inferences or inferring or concluding anything that doesn't have enough evidence to support that. So most people try to do that, but of course, you can't stop other people from doing the other side. Right?

[00:12:27] Sara: Now, on the other end of the spectrum, when we talk about ethical use of data when it comes to AI and maybe it's something you've heard also about ethical AI. One of the key things that you're looking at is really around bias and fairness. For example, a lot of machine learning use cases, for example, whether it's credit scoring, using alternative data, where in you use different data points that are not usually used. And because of that, the question rises like is it correct to give or not give someone a line of credit because of a behavior that's not typically associated with credit, for example. Like your social media usage, is that a good way to assess whether a person is credit worthy? Yes, no. Or even traditional financial institutions, when you look through the information that we use to give credit to, or to approve or reject a loan. If you use demographics, like in some cases, there could be certain biases to certain gender or by assumption, so even age, right?

[00:13:31] Sara: But historically, those are the data points that we use. We have certain assumptions about certain demographics. For example, you assume that, "Oh, if they're older, they can afford more. If they're male, they could probably have more salary than female." Things like that. So again, this is one area that's quite growing in terms of concern. I think there's still a lot of people in the industry who are really mindful, who want to be mindful also, and to be careful into how we use data and are taking steps into making sure that we take care of that part also.

[00:14:04] Renee: Yeah, because there are no guidelines, right? Because the challenge on the internet in a lot of industries, including trust and safety, including data, is what is the right thing? What is good? What is bad? It is so difficult. Nobody can tell. That's why in data, I appreciate this is the story. I can't make inferences. You decide what to do. And you mentioned AI and machine learning are always related to data. Why is it related?

[00:14:34] Sara: So when you think about data, it's really, as you mentioned earlier, everything that we do online, even offline, it just doesn't get stored. But everything that we do, you fax information, this is data. And when you also think about AI, let's say recently, the movies you watched, right? When you talk about AI, for example, there's robots. There's something automated. And for that robot or for that any automated thing to be automated, it has to be processing something like data is the blood that flows through the veins of all of these automated machines, right?



[00:15:10] Sara: 'Cause what it does is, for AI to work, it has to behave like humans. So a machine that's behaving like humans thinking, processing thoughts. And those thoughts, for those machines are actually the different data points, the different information that you could be feeding into the machine. So it's closely related to AI because any automation for it to become AI, there needs to be like it's all self-learning, thinking, processing that needs to happen. And for that to happen, the machine needs to take in data. And actually gets processed by different algorithms to predict.

[00:15:50] Sara: So for example, Siri. If you are wondering how can Siri understand me? What happens is when a person talks to Siri, it captures that data through the sensors, like listening sensors on your phone or your device, translates it into something digital. And then from there, it applies the algorithms that predict what you're trying to say. So if it predicts that, "Oh, you're asking about weather because of keywords. And so some keywords in your sentence." It knows that, "Oh, if it's asking about the weather, I might tap this website that will give me the weather and it'll reply."

[00:16:31] Sara: So everything that fuels that interaction is actually data behind it.

[00:16:38] Renee: Right. So a lot of data crunching, continuous data crunching. And I think several years ago, Accenture had the study that said we need to raise AI like you raise children. You need to make sure there's no bias because that's how you create ethical AI tools, 'no?

[00:16:43] Sara: Yeah. So it's hard to be ethical in AI because the data that we feed into the machines to AI is actually based on historical data. What we have done before. Which is what humans have done before and historically, humans are biased.

[00:17:15] Renee: That's right.

[00:17:17] Sara: So that's why we have to also take corrective actions moving forward to fix the bias.

[00:17:25] Renee: Oh, what a difficult problem. And how do you solve a problem to correct the bias? Very interesting. So I think that's such a good background on data and AI and machine learning, Sara. If I were a young person going into tech, or if I'm already in tech, but I want to transfer because numbers make sense in my head. What are the different roles because there's a data analyst, a data engineer, then there's a data scientist and all a lot of these other data architects, right? All these other roles. Ano ba 'yung differences?

[00:17:55] Sara: Yeah. Okay. So actually, it can get overwhelming the things that you would seem that you have to learn because oh, might be quite different skill set. But if you think about it, as you mentioned, you can have different roles in this field. You could be someone like an analytics advocate or a manager that could really be the one talking to the stakeholders regarding how do you use this technical thing. A model, right? The AM case to be able to help their business. So that's the front end.



[00:18:25] Sara: And that actually is very important because a lot of people go into this field really working on the more technical stuff. Like you could be building models. You can be building the algorithms and making it work for the different use cases. So that would be like a data scientist or a machine learning researcher. But it doesn't really give any benefit without it being deployed. Being deployed means, it'll go into like a pipeline or basically a set of scripts. It'll allow for whatever system that needs to take it in for it to be operational to the business. So a machine learning engineer will sort of do that. Now sometimes, even before you do all of this heavy lifting with data, you need someone to just take a quick look what is the data saying? Either through visualization or what we call exploratory data analysis, and maybe that's where a data analyst will come in.

[00:19:23] Sara: So all of these different roles actually require different varying skills.

[00:19:29] Renee: So if, for example, I graduated, I'm a business ad graduate or HR, can I get into data science? Am I a good fit still even if I'm not Com sci?

[00:19:40] Sara: Okay. Yes. Actually, we've seen a number of people get into data science especially nowadays, there's a lot of programs even online, boot camps out there that will allow you to shift. And that shift means that they're just gonna put in place the foundation for the more technical stuff. But everything that you know about HR, about this administration could actually help because at the end of the day, the algorithms are one thing. It's application to the business that will really make it successful. So what you know about HR, so right now one of the areas is really around HR analytics also. So everything you know about the domain would be very helpful.

[00:20:24] Sara: So normally, what you just need is you need to have a grasp of the foundation when it comes to some linear algebra or matrix algebra stats at some basic statistics and then some programming. And the thing is, there are a lot of... depending on where you want to excel and write. There are some parts of it that can be sort of like automated in the sense.

[00:20:51] Sara: For example, you don't have to write machine learning algorithm from scratch. There's a lot of services out there where there's some pre built models. You just customize with the data that you have for it to be useful. You don't have to build models using coding. There's a lot of low code or no code environment that will allow to do that. You don't have to... you're not gonna build regression from scratch. Coding it from scratch. There's a lot of functions, packages, even open source tools that will allow you to do that.

[00:21:21] Renee: So if I'm starting, and you top top three tools that I should download?

[00:21:25] Sara: Okay, so normally, of course, there's Python as a programming language. So most common is using, let's say, the Anaconda platform. It's all open source. It's actually now I teach part time in UP that uses this and we can make very exciting things about even with just open sourced tools. So that's really the primary tool nowadays. Some people, they also use R, so that's another open source language. But R is really more around analytics, data science, as opposed to, let's say building AI or deploying an ML use machine learning use case.





[00:22:05] Sara: What else? There's also a lot of data visualization tools out there, even some of the commercial tools, they would have like a free version that will allow you to upload small data sets into their cloud for you to try out the tools themselves. Low code, no code environment. So, there.

[00:22:21] Renee: So Sara, if I was new and I wanna read about data science, where should I start? Or is there a website that you recommend or even a YouTube channel that you think I should listen to?

[00:22:33] Sara: Well, okay. So for articles, I like going to Medium. There's a lot of, although it's behind Paywall, but I really like a lot of articles there. You know, it could reach topics for someone who is just starting to more advanced topics. They can go very technical or very easy so there's a lot of variety of articles there for overviews. You have your typical consulting websites that we'll talk about data science, AI, so it's a good starting point.

[00:23:02] Sara: For actual training, I like Data Camp, Coursera, Udemy and the typical, what do you call this? Websites or online learning? I like O'Reilly books. I use a lot of that in my teaching as a reference, although that could be a bit more complex.

[00:23:23] Sara: But there's a particular book that I really like as an introduction about competing on analytics for businesses. It gives a nice explanation about really the journey also of analytics over time. Starting from the dashboarding era all the way to the autonomous analytics or AI as we know as of now. Yeah, there's a lot of materials out there, actually. There is a lot.

[00:23:45] Sara: I think, it would be good though, if you could always... If you find someone that you like would like to be a mentor in this space. That could give you also some practical information, then that's also very good because it can get overwhelming.

[00:24:01] Renee: Yeah. I mean, that's a really good start, Sara. Because what I want people to understand is with everything that you said, nothing should hold us back from getting into data science because of open source code, all these available media out there. And it doesn't mean if I didn't graduate ComSci, I can't go into data science.

[00:24:22] Renee: Just lastly, Sara, before we go, how would you encourage young women to get into data science? Give me your pitch.

[00:24:30] Sara: You know, these are really exciting times for data. I mean, I can't emphasize that enough, especially coming from someone who started in this field where data is not as exciting before. And given the things that we can do now, even the fact of open source tools, for me, that's amazing because before I used to buy expensive analytical tools to do all of this. So now you don't even need that, right? It's just a matter of your creativity thinking of what is the thing that I can create with data? Whether it's as simple as trying to automate, let's say your timings for your personal errands to more complex things that could really help, maybe even solve traffic.





[00:25:14] Sara: So all of that, actually, can possibly be solved with data, maybe together with some very high end computational power. But the thing that will fuel all of those advancement is really around data. And it'll become something that's gonna be very necessary. It's necessary now, it'll even be more so as we really are digitizing and digitizing a lot of experiences. When you talk about the new things, all the technologies moving forward is really also anchored into using data as it's sort of like fuel.

[00:25:54] Sara: So these are exciting times to be into data and a lot of opportunities out there. So it's just a matter of taking advantage of that. And at the end of the day, it'll be limited by own creativity or the things that could happen. And I'm excited for what are the other things that we could watch out for or expect.

[00:26:12] Renee: Yeah. Shout out to For The Women because I know they've been getting women in other fields into data science. And they started in 2018. I think both of us were part of that when they had started their journey. So for those who want to join, see their page, they're in Facebook. And with that, Sara, I agree with you. We can't predict the future, but we know data will move the future. So thanks so much for coming in today and explaining everything to us.

[00:26:37] Sara: Thank you.

[00:26:38] Renee: This was so good. It's so good. Thanks, Sara.

[00:26:40] Sara: Yes. Thanks, Renee. Thanks everyone.

[00:26:48] VO: Thank you for listening to Pinays Talk Tech Podcast brought to you by Accenture. Don't forget to hit subscribe on all major podcast platforms.

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