

Annaka:

Hey, and welcome everyone to Startup Savants, a podcast dedicated to helping aspiring entrepreneurs and startup enthusiasts by bringing you news, insights, and stories about the startups and founders that are making waves right now. I'm your host Annaka.

Ethan:

And I'm your other host, Ethan.

Annaka:

Our guest today is Artem Semyanov, the founder of Neatsy. Previously, the CEO and chief of research and development at Prisma Labs. Artem has now leveraged his background to create an app that scans and analyzes users' feet to identify their true shoe size. And we're so happy to have you here. Can you tell us a little bit about the history behind Neatsy, its mission and how you got started?

Artem:

All right guys. Thank you so much for having me here. Yeah, for sure. Well, overall me, myself and my brother Constantine, who's actually the CEO and co-founder as well. We both have the thing called flat fit and overpronation. So it always has been kind of a challenge for us to find the proper footwear. It's not even online, even when you go to the offline regular store, it's still kind of problem for us because you try on different sneakers. It doesn't fit great. And also if you wear not great fitting sneakers and you run, you have some pain in the knees and other things. So we were just trying to think, "Hey, can we actually solve that with the knowledge that we have?" And the most thing we are actually good at is Computer Vision, especially Computer Vision on the phone.

So we try to be like, "Hey, maybe we can make, join your phone into the measuring device so it can scan maybe your whole foot and understand which sneaker look good. Will have a good fit, not good fit. What size you should take on?" And that's pretty much it. We like, "Hey, maybe this is good idea." And we just started to ask our friends, do they have the same kind of thing? The same problem when they shop online and they also figured out that it's lot of people that kind of hesitate to buy things before they try on, it's kind of a barrier for them. Really they, "I have to try on before I buy. I cannot just order things online in terms of shoes."

And then we talked to the guys, they actually have a friend who worked at Adidas, and he's in the ecommerce department. I talked to him over the casual coffee, asking about the problems that they have, like problems with this whole people who hesitating to buy things online. And he said, they have huge returns because feet mismatch online. And also they really want to improve overall user experience and make people kind of get used to ecommerce. So I figured out, "Hey, this is like a customer problem. And also like big company problem that we can try to work some solutions on that." And that's how all Neatsy started, actually. Yeah.

Ethan:

That's a great answer. It sounds like you really started the company by scratching your own itch. You had issues finding shoes for yourself online and just like what you said, that's a huge issue. And it's something that lots of other companies have tried to solve, like Zappos, for instance, tried to solve this issue by making returning shoes super easy. And that-

Artem:

Yeah.

Ethan:

That made their company explode. And obviously they were acquired by Amazon several years ago now. And so this is now seemingly like let's not make the returns easier, let's just make the process better and hopefully solving the issue in that way.

Artem:

Yeah, for sure. Yeah. I believe solve the overall reason for it, not just make returns as easy as possible. Yeah, that's true. It's actually, I know even like... Is it interesting or not but all people say their feet are kind of special. Their feet are kind of special. Everyone says that regardless if it's special or not. And I'm like not a scientist, I know what is like the average foot shape for real, but still people like, "Hey, I'm special because I have a narrow foot. I'm special because I have wide foot. I am special because I have some orthopedic issue." So that's the thing, every person is kind of special. We want to make things relevant for people when they shop online. So they could buy things that are relevant to their bodies.

Ethan:

Absolutely. That reminds me of that Contacts... 1-800-Contacts, commercial where the guy's like, "I have special eyes."

Artem:

All right but I never saw it, please send me the link after the podcast.

Ethan:

Oh yeah. It's such a great commercial. It's several years old now. I will send you the link. It's so good.

Artem:

All right. All right, all right. Cool, cool, cool.

Ethan:

But back to Neatsy, so Neatsy is both a business to business and a direct to consumer company, but it seems as though the focus right now is more on the B2B side. Can you tell us about the thought process behind making the decision to go more B2B?

Artem:

It's interesting actually, since we are good engineers beside from the things that are not really good in terms of pretty like straightforward startup process, we started to build technology rather than really figure out the product and business model really good. We spent, I don't know, one and a half years of research making the AR works and make it accurate. And then we launched our app. It was like, right, one year ago, actually. We launched our app as the marketplace. So we thought that people can download our app, see what are the best fitting sneakers for them. Then they click open store and they would be turned to the web page or Nike or Adidas or other places, Amazon, so they can buy something there. But overall this idea would not work that well because we just had pretty weak economics. And the reason for that, affiliate links doesn't work that well, they not track every purchase.

Also, if the person, for example, opens up the link to Nike.com from our app, and then switch up the browser. Then when a couple of minutes, take the phone, open up the browser, go Nike.com, take this shoe. Then we will not get any affiliate revenue from that. So overall, just... This all new privacy regulations and all the new privacy moves that Apple do. It's actually really hard to track all these transactions and the overall, just our business model just didn't actually work. So we thought like, "Hey, maybe we should try to sell it up our platform and maybe have the price a little bit more for these like service, but still people want to have the best prices while still have this like personal recommendation thing. So we thought, "Hey, maybe it's hard for us to ask end user to pay for this service. Let's try to maybe solve the B2B problem." Like ecommerce stores, they have a lot of returns and they... It would be easier for them and that's actually worked. That's actually worked pretty well because it's pretty much straight sale.

I know we just go to the store say, "Hey, you have this number of returns, we'll reduce it. Or you have this conversion rate, we'll improve your conversion rate up to 50%. So it's a straight up revenue boost for you."

Ethan:
That's huge.

Artem:
Like 10 to 15. Yeah. It's like 10% to 15% revenue boost, super fast like in the couple of months. And if it's already big store, it's like, do you imagine like 10 to 15% from the big store revenue just in couple months, that's huge actually.

Ethan:
That's absolutely amazing.

Artem:
So we'll say, "Hey, we'll just add up revenue to you. And our price is just a fraction of this added revenue." So it's pretty much easy to understand deal for them, like why this makes sense. So that's actually worked. And that's what we are trying to scale as of today.

Annaka:

Yeah. It's I think everyone's bought a pair of shoes that don't work and you wear them around and you're like, "All right, maybe I can make this work." And then it's like, "Mm, no, I can't. I can't." So-

Artem:

Yeah. It's actually even more frustrating when you finally convince yourself like, "Hey, maybe no, it's okay." You just don't wear them. They just sit in the closet and it's also, you have this, I know don't well fit in your soul that I know, maybe that was a stupid decision or stuff like that. So it's actually, but all shops, they want good user experience to have people make people happy with these purchases. So we are actually helping shops to have this good user experience.

Annaka:

Yeah. And user experience nerd checking in, you said that it took a year and a half of research and development to get to your minimum viable product.

Artem:

Yeah. That's true.

Annaka:

What was that process like? Like what kind of challenges were you running into in that process?

Artem:

Oh, It's huge. It's huge. Actually. It's so many. First of all we were trying to... Well, I don't know. It's like, is it really interesting to hear that technical details. But the thing is we tried to use the thing called ARKit on our first products. That's the framework for Apple iOS devices that helps you to do any AR stuff.

Annaka:

Mm-hmm (affirmative).

Artem:

And we try to base our technology on this framework but in the couple of months, we realized that the accuracy is not there. So the AR they're more designed I don't know to put some AR object in your room and you see it through them, but it doesn't have the precision, the interval precision that is required for our task, because it's actually pretty surprising that the difference between sizes is between like size 10 and size 11. It's not that much, it's one third of an inch, which is 8.4 millimeters. It's not that much. So you have to be really precise in measurement to make the product make sense. So we tried ARKit, it didn't work. We tried photogrammetry. It didn't work. So it's like, you just do research it didn't work. In the scientific world, it's kind of fine. Okay, we tried this thing, this thing doesn't work. We still did a good job but in the business world, it's kind of really hard emotionally for the team that you just search, search, search, trying to build this thing.

And finally, we figure out that the another technique works pretty good. It's right now we use Apple Face ID camera. So basically our solution works on Face ID enabled iPhones. And this Face ID camera, it's pretty amazing thing. You can actually, the most amazing thing, it sense depths. The depth, it's even called TrueDepth camera. You can see not only like the RGB pixels in the image, but also the depths of the image. The Apple did it to make it harder to unlock with the photo. So like all other smartphone manufacturers, you would try to unlock Samsung with your photo, it's actually sometimes work for you.

Ethan:
Right.

Artem:
But Apple devices, they decided to have this 3D model of your face, which is harder to make. You have to actually have, if you want to unlock the Face ID iPhone, you have to make a dough out of a person kind of like Madam Tussaud kind of thing, which is hard.

And it's something that just doesn't make sense. Yeah, so... And we were pretty fascinated that we can build our technology using this hardware. And this hardware is actually in like so many peoples' pockets right now, even like two, three years ago, the Face ID enabled iPhones weren't kind of that widespread, but right now, it's even hard to find the button iPhone, with the button attached to it. It's all Face ID right now. So yeah, that was like, so basically we did several month for one ideas, several month for other idea. And finally, after one and half years, we came up with the idea that worked with Face ID and we patented it. How to use TrueDepth cameras to reconstruct 3D body parts, like full body and foot as well. So finally we made it work and after that we thought, "It's done." All right we did a new technology, something really new for the world.

Annaka:
Yeah.

Artem:
But it's actually, the struggle only started there because we still have to try, still have to find a business model. And also when we speak about like finding the best fitting sneakers, and also the sizing, it's not only about measuring people, it's also about measuring sneakers. That's also a super important thing because units kind of match to things. So we've tried so many things, we actually put, I know water in the... I know I can't, let's say a water in the [...] and freeze it in the freezer. Kind of frozen, really a frozen part of inner sides of sneaker. It just wasn't practical at all. Then we tried some other techniques like special robotic legs that kind of stretch out from insides. Also, some problems because sneakers cloth kind of stretchy.

Ethan:
Yeah.

Artem:

So it's really hard to emulate the real human foot because when you put real human foot there, it's surprising the fact it's not that intuitive, but still when you put a real human foot inside the sneaker, the sneaker changed shape.

Annaka:

Mm-hmm (affirmative).

Ethan:

Yes.

Artem:

So if you measure sneaker shape without human foot inside, it actually doesn't make any sense because the shape different. The shape is different when you put human foot inside, because it's all stretchy, it's all soft in a way that's the problem. And the final touch of all this crazy R&D in the final touch I guess. That's actually it's also counterintuitive, but it's true that the world just works like this. No, people with exactly the same measurements, they sometimes choose different sizes.

Annaka:

Yeah.

Artem:

Because what is the comfort? Is different for every person. Some people feel like, "Hey, I have to really feel the furthest part of the shoe with your tongue." Sometimes people say, "No, I don't have to feel that. If I really feel the front wall of the shoe, it's already too tight." So for different people, it's different. What they consider as the good fit. And we did a lot of things in the interface of our app to actually help people kind of self-identify, "Do I really like a tight fit? Do I like more relaxed fit?" That was really a lot of efforts from our UX part and user interface part to help users self identify what kind of fit they actually like.

Annaka:

Right, right. And we, I mean, I downloaded the app. We had a blast, I'm scanning our feet like I'm-

Artem:

All right.

Annaka:

I was starting it up and I was like, "All right." In my brain, I'm thinking, "All right, this is probably going to be a little complicated. It's scanning." And in my head, I'm like, "It's AI and AR this has got to be complicated." And Nope, it took us three minutes.

Artem:

Oh, thank you. Oh, thank you. Thank you.

Annaka:

It was... I just want to say that I really enjoy how paired down and intuitive the user experience is. It took something that I thought was going to be very difficult and made it really easy to use. So-

Artem:

Cool. Cool. Thank you

Annaka:

Yeah, no, it's... I will always nerd out over good UX. So how did the user experience of the app kind of play into that when you were building it out?

Artem:

Well, we actually, I know we just did a lot of testing. Well, the best testing you can actually make is a Mom Test. Especially when you do some super tech, I just have the task for every developer in our company, really take this interface and make your mom try to use that. Is it easy for the person that is not super tech savvy to use this AR? If it is, that is good. If it's not, it means it's too complicated.

Annaka:

Yeah.

Artem:

So the Mom Test is pretty-

Annaka:

If you need another tester.

Artem:

Good thing.

Annaka:

Yeah, I'll give you my mom's email. She's an excellent tester. "Mom, can you find the attachment in the email?" "No." "Okay. Let's go back." And now we're going to start using Mom Testing here. So one more kind of user experience and tech question. So at one point you have the phone on the ground and you're scanning your foot over it. How is the computer, the AI, interacting with that user input?

Artem:

Well, it's a lot of things. When you place your phone on the floor and place your foot over, like hovering on top of the phone, the first like stage of that foot scan here. It's like, it's a lot of happening inside the phone. The phone tried to understand, is it a foot inside the picture, or it's not. There was some object, it can be the table, your face, other things. So is it the object that I really need to capture? If it is, all right. Let's have the actual scan. So the actual scan is not really a picture, it's a small video and your foot is actually shake a little bit, it's not super stable.

And using these small shakes, it's actually, we can make more accurate 3D scan by kind of combining 30 or 40 frames into one kind of small video sequence. And then we use the thing called, fusion, like frame fusion in 3D. It's actually the same technique that is used in the self-driving cars. That's basically, you have like a number of... A sequence of frames with depth sensors to, and we use that to recreate the 3D. Then we have 3D of your both left foot, right foot, also left and right from the sides.

It's like four pictures basically. And using this kind of a pic... A 3D model from the side view, we construct the full 3D model. The full 3D model is also reconstructed with convolution, neural networks. The thing called Autoencoder, to make it super simple you kind of try to teach AI to represent the whole foot as the set, I don't know, like 10 or 100 parameters. So the whole foot is defined by 10 numbers, the overall shape, or like 100 numbers. That's basically what we are trying to do here. And after that, we just have all these, what's your length? What your width? Arch height, overpronation, flat feet, other like hallux fibers. Other health issues that you might have. And also using this information, we try to find the best shoes for you, using the actual the reviews from people.

So we basically match reviews to people shapes and try to... for example, I know like five people with really narrow feet says that this shoe is really comfortable. I know five people with wide foot says, "It's not that comfortable." You have narrow foot. So we have the reviews from narrow foot people, kind of be more weighted in our recommendation algorithm and the reviews from wide foot, not that high weighted. Then that's how we personalize, the feet ratings and kind of help users to find what would be good for their type of foot shapes.

Ethan:

That's really interesting that you're using the reviews from people to really kind of figure out how that shoe fits. Do you find that those are innately trustable, that all the reviews, or have you run into situations where you've seen reviews that actually don't work for your product?

Artem:

That's good question, really? How is it possible to distill the reviews? That's true. Sometimes reviews are not really good. Especially if people... Well, like some brands... We don't have that situation, but I heard from other companies who deal with reviews said, sometimes brands do kind of buy reviewers to have the good score for their products. It's happened all over in different marketplaces and it's a lot of techniques actually, how to distinguish the real review from the spam kind of thing. I wouldn't go over it because figure out how our thing works. How like both detection thing works. But yeah, it's definitely problem. We have to really kind

distinguish real people reviews or like super biased people, or like bots, like paid reviews thing. That's the main thing, the main problem here that we are also solving.

And also there's other interesting problem here is that sometimes people really know how any sports shoe should fit but sometimes really not. And we try to add real experts in our review system.

Ethan:
Right.

Artem:
So we have both reviews from like real just customers like regular customers, like all of us here. And they also try to add reviews from like semi-pro athletes, I would say. People who have some real thing in sport and their reviews are kind of made as a super reviews, I would say. They would have more weight in the final feet rating.

Ethan:
That's really an amazing, it's just grabbing any information that you can to make your product better. I love it. I love that you've gone for reviews.

Artem:
Yeah.

Ethan:
That's awesome. It's really thinking outside the box as well.

Artem:
Truly because many companies try to measure sneakers inside, but I don't know, but people and like mass people opinions is actually much better than any measuring device.

Ethan:
So it seems that Neatsy's technology could really positively infect the entire ecommerce industry and even more than that. What other use cases do you see for this technology? And are there currently any that you have in production?

Artem:
Yeah, well, no, I guess the main use case other than ecommerce that we are trying to do is health and fitness related use case because essentially what we're trying to do, we're trying to help people buy online a shoe for every kind of activity, whether you want to do running, either trail running or asphalt running. You can go like basketball. You can go to the trail hike, you can buy a rock climbing shoe. And for all the kind of sports activities we trying to get to cover, to find, to provide you with suggestions, what would fit you the most. It's actually part of the health and fitness category as well. And also we are trying to find differences using the 3D model of your

foot or 3D model of your full body that we also developing right now, we can find some health risks.

Obviously, we cannot really diagnose people because it's more like from legal perspective. The only thing that we can say is that, "Hey, that might be a good time for you maybe to go to this particular doctor and have some consultation, because there is some risk of this condition or that condition." So we are trying to actually find some things like overpronation, flat feet, hallux valgus that's the most common foot problems that people have. And also for the full body scan, our idea is let people track gains not from the weight perspective, but from the volume perspective, how your belly shrinks or how your bicep got bigger in the gym. That's also interesting application for the 3D body management tech, especially in the phone and be kind of excited that we can make people healthier. That's actually interesting idea. We can make people healthier while letting people just buy stuff, letting people buy sneakers and clothes, that's the thing.

Artem:

So we just use this feeling of customers that they want to buy new sneakers. They want to buy new clothes and we actually can make them healthier while they just going to do this ecommerce experience. And that's what really fascinates me, I think, because otherwise you have just the health app. It's hard to actually for people to know about this app, because it's not like the thing that you think about every day, it's a small changes in your body. It's not super great diseases, but it's actually degrees, the overall quality of life as you getting older. And we can track these changes before they got really really massive, that's basically the whole idea of preliminary medicine at the glance where we'll have people who buy stuff in stores and we try to make them healthy in the process.

Annaka:

I am super excited for the full body experience at some point. Like sign me up because my nightmare is going shopping. I hate it. Hate hate hate. But if there was something that is like "hey this size jeans are going to work for you and jk you just lost 20 lbs heres a new size to try out" rather than like "am I a 10 and I a 4? What am I now?" I think a lot of people think you just pick a size for the rest of your life. No you are wrong.

Artem:

It will change over your life. That's true.

Annaka

And we were talking about getting fitted for running shoes. And it's like the current process is go into a running store. You say, "Hey, I run X number of miles a week." And then someone brings shoes out and watches you walk on a treadmill. And it's like, that's... And I know a lot of people that have gotten fit incorrectly. So, this is huge for the health and fitness industry.

Artem:

That's actually even... Yeah, I totally agree. And you are talking about pretty good store. Sometimes people don't even have the access to the treadmill in the store. It's not super widespread if you actually take the whole world. I believe I really like also this experience with like you had actually tried on treadmill and I guess maybe our technology will not really replace that, but we can add some other things like, "Hey, just don't waste time on those. Try this first."

Annaka:
Right.

Artem:
Which also makes sense.

Annaka: Oh yeah. It's a big process, but if I can stay home, I will. So excited for that

Artem:
All right. Yeah. That makes sense.

Annaka:
Yeah. So as far as more user interaction goes, how do you ensure the privacy and security of the data that you collect for your users?

Artem:
Oh, that's actually interesting question because that's one of the things that we are trying to distinguish ourselves from the competition. We can say that, hey, we can actually be pretty confident saying that we are the first company in the world who did the whole 3D scanning process inside the phone. So we're not actually sending the pictures of users to the cloud. So all measurements is done inside your iPhone, which is super private. And the only thing that actually leaves your iPhone is just the final measurements while all, actually it's literally all our competitors, they do it on the cloud.

Artem:
And it basically means you send half naked pictures of users. Yeah. And they claim it's unhackable but like come on.

Annaka:
Yeah.

Artem:
Every computer system is hackable. If a smart person wants to do that, just the question of how smart the person? How much time and effort put in there? So we just decided to remove the whole security question whatsoever because it's just all calculated inside your phone and that's it, stays inside your phone. There's no really old pictures are not traveling over the internet. That's I guess the main difference factor for us.

Annaka:

Yeah. And a huge selling point. Huge. It just doesn't leave your phone. That's perfect. You don't have to worry about anything. And how did you price this? How did you decide how much to charge for a technology like this?

Artem:

For the licensing as B2B, well, it's pretty straightforward. We did several pilots, which confirmed that we boost conversion rates. Usually it's conversion rates boost is boosted by 1.5 times, right so 50% more, sometimes a little bit less around 30% — it depends on the shop. And we just calculated, okay. It's pretty straightforward calculation. We like, "Hey, how much a store gets from each purchase?" It's usually I don't know \$120 for sneaker, the average other value. And then we are like, "Hey, what's the usual conversion rate? How often people buy something?"

Annaka:

Right.

Artem:

Usually it's like 2% or 3% if you calculate it from the home page. So on average stores gets, I don't know, \$2.50 per user. And we say, "Hey, we will turn this \$2.50 per user into the \$3.70 per user. And for that, we will take \$0.20 cents for each user." So you end up \$3.70 minus \$0.20, \$3.50, which is better than \$2.50 that you have.

Annaka:

Right.

Artem:

And we kind of use this unit economics idea. And that's actual, the really good thing to go for any SaaS model startup that is trying to do business and just, "Hey, just calculate how much value you bring to the client, divide this number of value by five, that's your price." And then just try to scale it as much as possible.

Annaka:

Yeah.

Artem:

And so the answer is pretty simple. Find how much value you bring to the client, divide it over five, find some unit. So for which unit you price, is it API Call? Is it like one user seat? Is it one customer at the store? Like we do. So yeah, you find unit price, you find how much you bring value per-unit and then you just calculate your price, the fraction of this value.

Annaka:

Yeah. I think that's a very helpful breakdown.

Artem:

It's like, yeah. It's actually, everyone can use that. It's pretty much good work in... Oh, that's for sure that's a good starting point. And then you kind of iterate, listen to your clients because when you do the B2B and come up to the company and you say, "Hey, we are flexible too." They ask you how much, how much and be like, "How much is it?" And if you say something like, "Hey, we are flexible in terms of pricing. How much would you pay?" That actually just goes to the infinite number of discussions and you just pretty much have to, some pretty well pricing model at the start. And then you try to listen to what clients really want and just this pricing model out of real feedback.

Ethan:

That's super great advice. And I think the business model of improving the unit economics for the company that you're partnered with is a really excellent take on kind of the picks and shovels, the picks and shovels idea. I love this. This is great. I mean, this is something that we initially started or you initially started talking about affiliate, which obviously has its positives and negatives. And then when you found that you could go work with corporations, giving them the picks and shovels to help them to move their product is... I mean, that's an awesome, that's an awesome business model, and it sounds like your method of pricing of basically just take 20% of the improvement that you're helping to give them. And yeah, this is great. Your way of thinking is very clean. I like it.

Artem:

Thank you. Thank you. Yeah. Well, it actually works in every business. You really like, just because they always like, "Hey, if I pay this..." It's like, it's not really payment. It's an investment for any, if you as a business acquire any software it's actually investment that you want to get something out of this investment. And if you really make it clear how much you get, it's easier really to decide is it, do you really need it or not need it? Do I really believe that this, if I pay this build work, maybe let's try it. The small pilot, see how it, if it works, then just expand. Yeah. Pretty working thing.

Ethan:

Awesome. So once you decided that you were going to go B2B, partnerships and collaborations really became an extremely important thing for your business. Who are a few of Neatsy's partners and how did you establish those first partnerships?

Artem:

Whoa. Well, it's actually pretty slow process, to be honest because everyone it's easy to start conversation with some big client, but it's really hard to learn some project because sometimes people just talk, talk. Yeah. It's interesting. But maybe not right now next year, let's add you to our plan for next year. Something like this. So right now we have a couple of pilot projects with Puma and this global fashion group. Well, the story was pretty clear. They the most, I don't know, ready like, let's try. They have like the managers, they have this, let's try attitude and see the results. That's why we started with them first. So I would say the overall recipe here is that the B2B, the company is not the company. It's like people inside this company and they have their own goals and they have their own personalities.

So sometimes people really want something to change, they're innovators in mind. Sometimes they're more conservative and skeptical and you never know which one you get when you knock door in one company and into another. So the thing is here is that you have to just knock to 10 doors and two, three will work. Even if you don't have the super finished product, super working thing, they would have this in a way to add it too like, "Okay, let's try." And the others would say, "Hey, maybe we're not ready. We'll look at you and if it really works with the others, yeah. Then we'll add it." So yeah, that's the idea. Knock onto 10 doors and the two or three will open.

Annaka:

I love it. I love it. You just have to go out and someone is going to back you. That someone is going to be like, yes, I'm going to sign on to this because it's really, really cool.

Artem:

Yeah. But at the same time, all the people it's like when you do something new, you always... It's hard. It's actually, it's really hard to do something new for technical point of view. But it's also, it's really hard from the sales point of view. I didn't thought about that when I started, Neatsy, I was thinking like, "Hey, you could do something really new. Everyone would want to buy it." But then no, people are skeptical. People not get used to these kind of products. It's super new. They sometimes just feel like "Hey, we have to be cautious if we buy it. Only if it's like 100% proven it's super work."

Annaka:

Right.

Artem:

So, but when you do the startup, your product is never finished. It's like, it's always some "work in progress" state. So I have some other friends, interpreters who polish up the whole product so much time and they don't actually go and speak to the clients because they feel like the clients would reject them because their product is not finished. But the thing is, it's always, some people would say, "Hey, we are not ready for that. We will buy it only if it's super time proven." But some people would say, "Hey, yeah, let's try."

Annaka:

Yeah.

Artem:

So you never know, you have to try it, let's speak with it, try to market your product as fast, as soon as possible, even if it's not super ready state.

Annaka:

Yeah. Yeah. And what was it like... What was getting funding like? Especially when you're in that early stage of like, "Hey, we have this idea. Give me money."

Artem:

Yeah. That's also hard because yeah, because all investors, they want to see the real working business model. Nobody really wants to invest in a bunch of smart guys who just have the idea it's hard, but sometimes you just... Well, the same thing you have to speak with, I know 50 people, at least like at least 50 pitch things, pitch calls and to find this one or two investors, especially at this like super pre-seed stage, seed stage, we are still on seed stage actually. So it's not serious a or seed stage startup right now, but yeah, you just... I guess the one thing that really works on this, like super early stage, is the belief in a particular person. So both like really super early needs investors, both cases, they were friends of my friends. So they will kind of really know the person who really knows me. And that's why they kind of get some confidence in me that I can do that. I guess that was the main deciding factor here.

It's super... It's interesting, really. And also when you actually do the pitch at the super-early stage investors don't even ask that much sometimes. Either smart investors, they don't even ask that much about the product because they understand that it will change, it will change in details or down the road. It's more like... they more ask what kind of person you are, about your previous experience. It feels like a little bit like job interview, actually. You're talking not about what you're going to do, but you're talking about your past; what you did in other companies. What projects were, how did you solve, how did you overcome challenges. Super close to the job interview. That's the thing, I guess.

Ethan:

That's a good explanation. What was something, when you first launched this startup, what was something that surprised you, that you launched your startup? Was there something that was way harder than you thought it was going to be? Or is there something that was way easier than you thought it was going to be?

Artem:

Well, that's an interesting question. Let me think about for a couple of minutes, couple of seconds. That's a podcast.

Ethan:

We're here.

Artem:

All right, yeah. Yeah. Well, I would say that, I guess the most surprising thing... Well, I guess for every person it's different, but for me, I'm a former engineer. I'm like... At the start, I was just writing code, then I became a team lead of engineering. Then I became CEO at my other company, but I wasn't a founder. I was kind of just promoted to CEO and then I decided to quit. Then I started my own startup. And I would say that the most thing, when you're a developer, you feel like if you do something cool and take it, everyone would certainly buy that because you kind of get used to get your salary for doing take your things, but you don't know how hard it's to get this money, from investors or from customers and not actually maybe value that much. What people, what other sales people do or see or do for they getting funded or other stuff.

It kind of takes things for granted. But when you do it by yourself, man, it's like, you just in it that it's so hard, really. Even if you do really interesting things from a technical point of view, it's so hard to convince people that it's really good, it's really working. It's so hard, like investors, really to convince when you don't have super lots of clients and a super working proven business model with 100 enterprises that is paying for you. So that's what's the most surprising thing that's really hard to do. So it's really hard to do sales and fundraising. It's a super intense job that has to be done good. And you have to build a team that helps you with its super important roles.

And it does matter how good your software is. It's like your... How good your software is, is just one side of the plane. You have to have two wings for a plane to fly and they have to be the same size. You have to have good sales, marketing, fundraising processes, and you have to [have a] good product engineering processes. And that's the only way you would fly. If you have only one wing, it never takes off. Either engineering or either good sales team, so it would have to be both. That, I guess, was the most surprising thing.

Ethan:

Yeah. I hate it when I get in the airplane and it's only got one wing, it's just the start of a bad day.

Annaka:

That's going to be a problem.

Artem:

Yeah. It's not going to take off yeah. That's true.

Ethan:

No. Is there something that you wish you knew about entrepreneurship before you jumped into this startup?

Artem:

Well, I guess the answer is a little bit the same because like I wish I knew that that is like how to fundraise, how to do software sales get more, but at the same time, you never prepare. That's the beauty and the curse of the startup. When you get on some stage, next stage, get some success. You're exactly like at this very moment, you became at the point, when you, again, you don't know what to do, then you get to the seed stage, for example. And you're like, "Hey, I don't know how to get to Series A." When you get to Series A, you say, "Hey, I don't know how to get to like Series B because I've never done this before in my life."

Annaka:

Right.

Artem:

Then you get to Series C like, "Hey, I never did an IPO in my life." So you're always in a position, like you don't really know how to do that because you've never did it before, but at the same time you have to do it good. That's the whole just hard thing. And the one thing I really maybe wish I knew that kind of maybe kind of get used to that you are unprepared, do it unprepared thing that you don't have to be that prepared. Just start it and figure [it] out on the fly. That, I guess, would help me in the past, because sometimes I just get shy, like, "Hey, maybe we are not ready yet." Some sometimes like, "Hey, maybe what? We cannot do that yet." But you never prepare when you do startup. You always, it's kind of like, "Hey, I never did this before."

Ethan:
Right.

Artem:
That's how I guess as one... The main thing that I would love to have before I started, but I didn't, but right now I have it and think so much better.

Ethan:
Your early answer there kind of reminded me of something that I recently heard on another podcast. There was a gentleman talking about what you call the stair step approach. It was essentially this stair step approach was that a person who has never had experience with starting a business or running a company or anything like that, they're probably not going to be the one that's going to have super easy success. Not that it can't happen, but they probably, they need to go through some of the smaller levels first. You need to get your seed funding before you go to IPO. You need to develop your idea and your product before you can start hiring your hundredth employee.

Ethan:
So hearing that is what you also think, that you need to start where you are. You need to get to the next step and then start from there again and get to the next step. It's really about a journey of a thousand steps, not one big step. We're not going to all just wake up tomorrow with a startup idea that's going to make us billionaires.

Artem:
Yeah, that's true. That's a common misconception. The idea is like, "Hey, I have the billion dollar idea. And that's the only thing I need." It's not the one big. Yeah, I really like how you put it. It's like, it's not one big leap. It's just a ladder. And every time every step is kind of new, yeah. It's good. It's a good concept. I really like it.

Annaka:
It's yeah. You can't go to step 10 before you do step one.

Artem:
Yeah. That's true.

Annaka:

Can you talk to us about your tech background? Because Neatsy is, for all intents and purposes, a tech company, what kind of experience did you have before jumping into this?

Artem:

Well, I would say that it all started from school. I guess I have some success in different competitions for school, high school students in economics and programming, but I get more success in economics. So I got the economics degree. I was at UCL, University College London. And during my studies, I was like, yeah... It's not even during my studies, just after I graduated university. I asked myself, "Hey, what subject did I like to boast? What was the best thing in these four years?" And the answer in my soul was like, I really liked probability theory, the statistics, and econometrics. And I started really to get more deep in that, get some... I get some small work, freelance projects when I actually tried to predict oil prices using different statistics techniques and econometrics. And that's basically a super basic machine learning.

That's how it all started for me, all this machine learning AI thing. It was, I know it was probably 2014 something like that, 2013. So pretty long ago, then I started to some other projects. I started 2014, 2015, all this computer vision, AI started to boom, all this topic. I started my own company. We were making some small projects for different websites. For example, we did one of the first computer vision projects they had was to build the system that recognized antique postmarks, post like stamp marks. So you could identify do you have some super rare antique that has great value or it just a pretty regular one for \$1. That was one of the first projects. And then it was like so many projects, products, all in computer vision area. Then I got to Prisma. Prisma was super successful 2016, 17. We were like, the only app that grew faster than Prisma in that time was Pokemon Go. So we were like, like-

Ethan:

Wow.

Artem:

Second after Pokemon go.

Annaka:

Wow.

Artem:

Yeah. So we had like 15 million users in just a couple of months. That's crazy growth. Pretty exciting, really. I really liked all this time at Prisma, super great team. I was handling all the machine learning projects at the company. I had around 15 people who were in my team, exciting in time, we built many different technologies all for running on the iPhones, which is also kind of cool. So you don't have to really, it's a really interesting topic in computer vision, when you don't need to have super great machine like Amazon Web Services to run your software, you have to make it kind of efficient to run just in the iPhone. And that's the only way to actually

make it sustainable from the business point of view because at that point of time in Prisma, we had huge bills from Amazon it's super expensive, especially when you run B2C company, it just, the cost is just not justifiable when you do some computer vision on the cloud.

So it was important for us to move it all to the iPhones and then to Androids. Yeah, that was pretty much my technical background. So I started as an economist who can code a little bit, yeah. Then I became a machine learning engineer as just the guy who writes machine learning projects. And then I became a team lead of the team with many machine learning engineers. And then I started my own startup. That's the story.

Ethan:

That's a heck of an evolution.

Annaka:

Yeah, absolutely. And as far as your team goes there-

Artem:

I feel like Pokemon, like you just get bigger, bigger, bigger, more skills. Before that, we just managed developers, then you are trying to sell stuff, trying to fundraise, trying to do PR, all these kind of new things. Yeah.

Annaka:

And your team is mostly AI engineers. Is that, did I read that properly?

Artem:

Yeah. Well, we recently fundraised a little bit during summer and fall last year. So after that point, we finally started to build our business team. We expanded with the sales managers, PR managers, other business guys. We finally have them, but even last summer, we were just the team of seven AI engineers.

Annaka:

Sounds like an inter... A fun group.

Artem:

You can actually... It's a fun group. I mean, I even have many pictures at our careers page. So we just have, okay here we are the conference carrier, mountain, hanging out together. We really like hiking and skiing. It's a big standard, my mom is actually making fun of me and my brother as well. We have like so narrow feet, so the long narrow feet, she always say, "Hey, when you guys do ski, you don't need ski because you already have one." You can just, you can just go ski barefoot together. That's also part of the story about how we started Neatsy. Yeah, I guess that's yeah. That's all about our team.

Ethan:

All right. So, we've talked about all the good stuff. Now, we're all going to hold hands and we're going to walk down a dark path and I'm going to ask you as a founder. What keeps you up at night?

Artem:

Keeps me up at night? Each... Well, let me think.

Annaka:

This is Ethan's favorite question.

Artem:

Well, sometimes no, it's not really, there is really something that keeps me up at, I actually take this question too literally, because sometimes I really get up at night at 3:00 AM or 4:00 AM. And like, "Hey. Am I just keep thinking about what I should do or what should I say next morning?" About some business call and sometimes each morning you just spend half of night thinking about that. So, and the thing is, it's always different. So it's not really the answer to, I would answer that it's not doesn't mean I would say that there's no really one thing that keeps me up at night. It's like, you have to kind of let it go and have some rest really at night and kind of say, "Hey, this is my working hours. I'm thinking about business, but other hours, I'm thinking about myself, about my family, about my friends." I really have to take care of all of them. So my business is not my life. It's actually only a quarter of my life. I have my business, my body, my friends and my family. So it's like four lives. And you really have to take care of that and kind of switch from the business. That's the thing. So the only thing that keeps me up at night is I just sometimes [am] thinking about business and not just trying to get rid of that. Just not thinking about it at night. I'm not thinking about it on the weekends as well. I know a lot of entrepreneurs work all weekends. I have a lot of-

Friends like that, but it's crazy because it's a marathon, it's not a sprint. You can work like that without weekends for a month, for two months, six months, maybe one year. But after one year with no weekends, with no like holidays, you just have something in your head and especially, I know... Especially, sometimes you have everything good. Everything's really good. Everything is growing, but sometimes there are problems and it's not super fast that you can solve them and you work without weekends it's even harder to solve the problems. And the startup is like, you never get everything right. It's something not right, always. It's also kind of the thing that you have to get used to. Something is not right, always. You have to fix this or those, then you fixed... I don't know you fixed, I don't know, sales. Then you have to fix, I don't know, financials and reporting. Then you have to fix something in the product, then you always have something-

You have to fix and you kind of said that it is normal. It's fine. It's okay that sometimes something is not good and you really have to go to sleep because they will always have some issue to fix. That's it.

Annaka:

Yeah. Moral of the story. Do not sacrifice your work, your downtime.

Artem:

Yeah. Yeah. That's true. I mean, sometimes you can, but if it... But still, well, still... I know who said that, but it's kind of like one of the... The wise man or words from the past, that "All things that are good, they're not urgent and all urgent things are not... Doesn't matter that much." So like all the real big things that move in your life and they're not actually that urgent. So you just have to relax, work a little bit, work eight hours a day, maybe 10 hours a day. That's it. Take some rest, and take rest on the weekends.

Annaka:

So what is your advice for anyone wanting to start a business for any entrepreneurs that want to get started?

Artem:

Yeah. Well, many people say that, Hey... Many people say something like, "Hey, you have to do something that you like, something that brings joy." But I would not say that because if your business is growing, things are good. You feel that you don't like anyway, you feel inspired by that no matter what you do actually.

Some of you have, maybe, this feeling like, "Hey, something just not work properly." So I would say it's like, just it... I would say this question is only like three things. So business is basically three things. And if it's growing, it's cool. If you have inspiration in your heart, this is one of the greatest thing in life, and that's why we do actual startups. And we decided that's why we decided to leave some boring, big company at some point and build something by yourself. Business is basically three things. First thing, build things that scale, second thing, find product-market fit. And to third thing, be a hype beast. And that's it. Basically, you just do these three things and everything will work and everything will grow and it will have this inspiration. Build things in scale, find product-market fit, be high beast. That's I think the formula for any startup, any business. And that's the formula to really like what you do, because it will fuel you with energy.

Ethan:

Super excellent advice. Thank you for that.

Annaka:

Yeah.

Ethan:

Artem, is there anything else you'd like to share with our listeners before we wrap up. Any way that they can get in touch with you if they want to learn more, anything cool going on?

Annaka:

Well, yeah, for sure. Well, I would say that, try downloading our app. Just go to the app store, type Neatsy. The exact how you spell it, I guess maybe will be somewhere the podcast description, Neatsy.

Ethan:

N-E-A-T-S-Y.

Artem:

Yeah. That's it. Thank you. Yeah. And if you want to drop an email, just find my LinkedIn, or you can go to Neatsy website and there is a form there as well. But on the Neatsy website, there are different emails like support, info, and also there is a sales form. If you really want us to read your email, just bump in the sales form as if you were a customer and this will be read for sure.

Ethan:

Awesome, awesome. There's the inside scoop right there.

Annaka:

Yeah.

Ethan:

All right. Well, we will put all those links and everything else in the show notes and that's going to be it for today's episode of Startup Savants. Hey, thanks for hanging out with us today. So, how did you like this one?

Leave a comment with us with all your cheers and jeers over on the show notes for this episode at startupsavant.com/podcast. Now you've heard me ask this before, but I am once again asking for your button clicking support. Did you like my Bernie Sanders there?

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Annaka:

See ya.

Artem:

Thank you.