

**EPISODE 1372**

[INTRODUCTION]

**[00:00:00] KP:** The manner in which users interact with technology has rapidly switched to mobile consumption. The devices almost all of us carry around with us almost all of the time, open endless opportunities for developers to create location-based experiences.

Foursquare became a household name with the introduction of social check ins. Today, they're more than that. They're a location data platform. Ankit Patel is the SVP of engineering at Foursquare. In this episode, we discuss Foursquare's services, the way customers leveraged location intelligence, and opportunities for areas like augmented reality.

[INTERVIEW]

**[00:00:40] KP:** Ankit, welcome to Software Engineering Daily.

**[00:00:44] AP:** Thank you. It's great to speak to you and your viewers today.

**[00:00:48] KP:** To kick things off, can you tell us a little bit about your professional journey?

**[00:00:52] AP:** Sure. Ever since I was a child, I remember being a builder. In grade school, I spent many weekends building small applications and games. I really enjoyed creating new things out of things I already built. So, I carried that passion with me when I went into computer engineering at the University of Waterloo. I wanted to understand everything, the full stack, from the transistor to machine learning models.

So, over the last 15 years, I've had the opportunity to work at some of the largest organizations inside of AWS and Amazon, from Fulfillment by Amazon, to Amazon Prime, to being GM of AWS IoT. So, each of these areas helped refine my thinking around what's a builder's mentality? In fact, I realized over time, I enjoyed being the coach more than the player. And so, one of the I'm recently joined in as SVP of engineering at Foursquare, and it's been really exciting for me,

being part of a high growth company working, with smart people, building new product. I'm really excited to be able to speak to you about this today.

**[00:02:01] KP:** Tell me a little bit about what first attracted you to Foursquare?

**[00:02:05] AP:** Sure, when we think about location, technology, it's a power so many things in our lives. And for me, when I got to talk with Gary and the board, it became really clear this would be a great place to build things at the forefront of technology. Foursquare already had a focus towards long term thinking, driving decisions, iterating on it, but Gary wanted the company to move faster towards engineering teams operating as builders. So, for me, this felt like a great opportunity to come in and build and drive innovations within the company.

**[00:02:43] KP:** Well, I think Foursquare is kind of a household name for most people, especially the types of engineers that listening to Software Engineering Daily, but just in case anyone isn't familiar with the company, what are the products and or services?

**[00:02:56] AP:** Yeah, Foursquare has undergone an interesting transformation as a business. We started as a consumer app company. We invented the idea of a location check in and gave people fun badges. The more they engage with the app or businesses and their fellow users, they could become mayors of the city. From that we began to build out three additional core lines of businesses, leveraging most of the technology we had done for owned and operated apps.

The first one is helping people navigate and explore the world. We provide points of interest data to many of the large enterprises of the world. We compete with Google directly in the space and we work with companies such as Apple Maps, Uber, Bing to power their maps in venue search capabilities. We also go into business intelligence and outcome-based to location-based insights. So, for example, if you're an enterprise, how do I understand where my customers are? How do I reach out to them? How do I drive effective advertising? And then how can I analyze and drive better decisions? Site planning, consumer app experiences?

And then the last is we recognize that app developers wanted to deliver location-based experiences to their users. So, for example, if you're a coupon app, we power the the

functionality that prompts you with deals based on the businesses you frequent or where you are in the world.

**[00:04:18] KP:** What does it take for a developer to connect to something like that?

**[00:04:22] AP:** Yeah, so we offer a multitude of ways that developers can access our technology. The first is we ship datasets. These are available through our data providers like AWS. They can be directly deployed into your own infrastructure. We provide API's. So, we have a Places API that just one best API for API World, or best enterprise API for API World, and it gives you access to over 100 million points of interest source globally. It allows you to be able to use this data to power everything from in app search to recommendations that you want to give to your users or drive reviews and ratings for your apps.

**[00:05:07] KP:** Well, getting a best enterprise API award is especially interesting to me in the modern age. I've been a software engineer for a while and I feel like things have gotten easier and easier almost to the point where I'm spoiled now. I have expectations of a really good API, great documentation, all that kind of stuff. What are some of the bells and whistles that you think are in the award?

**[00:05:29] AP:** I think we started with the customer first. Often times, when you build an API, you're looking at what's the data I have? What's the entities I have? And then how can people access it? We started by thinking about and learning from our customers who used our data, and we worked with them to figure out what is the most efficient way for you to retrieve information? What are the types of API's you want to be able to access information based on such things as what's nearby? Or what's available? Or what are the things that are open based on your current time of day or the things that you're interested in? So, I think, for us, the enterprise API, really set itself apart because it allowed customers to access information in a way that was easy, intuitive, and let them build applications without having to build other systems in front of it.

**[00:06:19] KP:** A customer driven approach like that makes a lot of sense to me. How do you build a relationship?

**[00:06:26] AP:** One of the core tenants we have at Foursquare is we start with the customer. We already had products working with some of the largest enterprise customers, and we spent time with them. You can start from sharing ideas of where you're thinking you want to take the product, to including them in sessions where you're outlining your roadmap. And for me, I think my favorite is to build with them. You get a lot of interesting feedback, when you're going into developing new products, or even API's, where you work on a use case that makes sense for customers, and you get their feedback and helps you build much, much better product.

**[00:07:05] KP:** Well, under the umbrella of building a culture of builders, does that then apply both to the types of customers you want, as well as how the internal team works?

**[00:07:14] AP:** Yeah. So, in terms of how I think about building a builder's mentality, we want everyone in the company to be proud of what they work on, to understand where they want to go, and feel empowered to do it. Where that goes towards our customers, we want our customers to feel that they can build product on top of us. They can feel like they have a voice at the table, and that we are a very customer centric company that wants to be able to deliver for them. For me, we want to deliver 80%, 90% of the things we do towards customers.

**[00:07:56] KP:** I'm sure you're familiar with the famous expression from Facebook, to move fast and break things. Does that align with your vision of what a builder's culture can be?

**[00:08:05] AP:** It does. What I think Facebook men was done is better than perfect. And often at times, when we spend a lot of time coming up with a product idea and not getting it out to market, the market may have moved, or customers' expectations may have changed. For me, when you think about, let's say you peel back what a builder means, you have pride in what you do, you understand where you want to go, and you can feel it able to make those changes. And for me, one of the big things about builder mentality is if you're an engineer on the team, you feel like an owner for the product and customer experience. That fuels you from not waiting for another department or someone else telling you about a customer need, you're able to not only look at what you're offering, but understand what your customers need and want.

**[00:09:02] KP:** I think that's a vision very few people would be against. But of course, it takes time to either build those communication channels or just establish feedback loops. How do you get good measurements and intuitions about what customers actually want?

**[00:09:15] AP:** There's one big thing about – we're a developer product. One of the things that I'm a big advocate for is we should be users of our own product. We have to be using our products. What frustrates you? What parts are confusing? It's all about thinking about how would a customer use what you do. And for me, you know, I find you'd be surprised at the amount of innovation companies leave on the table by not engaging with their own internal teams and giving them a strong voice on what is working and what's hard to do.

**[00:09:54] KP:** Do you have any advice for how to build a culture of engineers and developers that can fit into that process?

**[00:10:00] AP:** I think it starts with driving decision making down. And part of that is to empower engineers or engineering leadership, to look at errors and problems without the need of someone else telling them the customer want. The way we do that is you make individuals on the team be vocal components of change. They should have a way of being able to communicate that with their product leaders, managers.

One of the mechanisms I really believe in is for teams to create a view for the future. You can call this a three-year plan. You can think about this as where do we want to take the product forward? And what makes this a really powerful mechanism is not only that you put this together, but you share it widely across the company. And from there, you get a really good view from not the top down, but from the teams themselves on what they understand of their customers. From that, you can have that discussion and dialogue and drive not only features, from what you're hearing from your business team, or your go to market, but you're thinking about this from an internal product. What do we need to do to get where we want to go?

**[00:11:18] KP:** Well, I know a lot of those discussions are private things that can easily be shared. Are there any user stories that you're able to share, maybe insightful times when customer feedback was the driving factor in the direction that things went feature wise?

**[00:11:32] AP:** So, for us, one of the most important things that we spend a lot of time on is the quality of our data. We have teams of data scientists, and humans that inspect model and work tirelessly to make sure we have the highest quality data in the market. We were working with an engineer on the team who had just joined, and we had just acquired a company called Unfolded that I can get into that later. But it allows you to view very large datasets and visualize it.

As he was coming on board, he kind of looked into some of the data. What he found was something very curious. Very small set of devices were not behaving normally. And they're effectively moving in some form of circular motion. He detected it. From that learning, we drove data safeguards throughout our entire stack to ensure we don't let bad data in.

So, for me, how we look at customer feedback, customers love, like no customer will say, "I don't want the highest quality data." And for us, that's super important. But one of the things that I really appreciate about a builder's culture is that you have people inside the team who know that data and information the best, and they're the ones that are able to shine the light on things that they want to – that they think are important for the customer.

**[00:13:02] KP:** Are there any challenges around scalability that the developers have to solve?

**[00:13:07] AP:** As we think about the data set and the data size, the volume of data that we have, scalability is always a challenge. Part of us, with the advent of the cloud and being able to get a readily available infrastructure, a lot of how we solve things, we can partition data very, very well. Now, some of the challenges that we see as we grow 10x in size, or 100x, is how do you become cost efficient at scale? And so that's where the challenge is. So, we're going through that journey, just part of our three-year plan of how do we scale our datasets 100x, but do it at 1/10 of the cost? And so, that's a really interesting problem, that matters to our customers and for us, because if we can lower costs, we can lower price for our customers.

**[00:13:55] KP:** Well, when you've got a lot of data, especially high-quality data, it seems almost unbounded. What you might do with it. I could see where maybe those data scientists you mentioned, are one day going to work on something to weed out, I don't know, spammy responses or devices that have broken GPS, or that could be a whole new product just from the data set. It's quite a place to go into a data mining expedition and maybe answer some

important company questions. But it also is one that sort of leaves things very open ended, who knows what insights the people might find as they explore it? Are there any lessons learned or best practices you follow in empowering a team of builders to go and do that sort of raw exploration?

**[00:14:37] AP:** What you want to be able to do as part of a startup company, not only think about what you're going to deliver today, but what is the data – what is the information we have or we could invest in that enables us to to expand into to another verticals, or another feature or provide more value to our customers? An interesting one that we have hotly debated is around AR. As a society, I think the jury's still out on how we will embrace AR to solve problems. But there's almost endless possibilities in terms of what we could do to bridge the gap between physical businesses in the digital world that people live in.

For us, we continuously invest in seed ideas, these are things that we have belief in, we have our customers wanting for us to solve the problem, there are seemingly endless possibilities of how AR could be used to change the way we interact with physical businesses and locations, and how we interact with one another. So, this is an area where we're investing resources to think through the challenges that customers may have, and how we could help in being able to bridge the gap between the physical and virtual world.

**[00:16:02] KP:** So, when you lead a customer driven product vision like that, when things are going to be motivated by those enterprise customer needs, there could be cases where you have a customer and their need is very unique, I suppose the ones you're going to be most concerned about are those that overlap at multiple customers. Have you seen anything insightful, or there may be examples you could share of these standard problems, you see a lot of companies struggling to solve all in the same way?

**[00:16:28] AP:** Customers, by and large, are trying to adapt to digitally transform their businesses. The world's changing fast. There is advances in IoT, payments, communications. We've seen that with compute infrastructure that enables small companies to compete more effectively and efficiently with established players in every market. So, companies need to adapt. They need to lead digitally transform their businesses.

When I talk to these companies, they want solutions. They want to solve a problem. But if you look across, typically, enterprise offerings only provide a limited set of point solutions. Customers are required to invest heavily in data science, engineering, and even security to solve their problems, and it's really expensive for them. And so, for us, one of the big things that drives our roadmap, is the set of services and features that will help companies move even quicker. And for us, we're very well positioned in the market by providing services to some of the largest enterprise customers already. So, for us, as we think about what happens over the next year, we're going to look to solve these vertical based solutions for our customers. They're the ones telling us, "Hey, I need help in this. Instead of giving me individual API's, can you help solve this problem for me?"

**[00:17:52] KP:** Is there a common entry point for most companies? What's the typical first engagement for people to start working with Foursquare? What problem is that they're solving or they need you to help them solve?

**[00:18:04] AP:** Now, I will caveat all this. I've only been here three months. But I think one of the big areas that customers start with is how do I effectively communicate in message to my customers? How do I use location intelligence to drive who I communicate with, to make that message relevant to them? From there, they start thinking about what are the other ways that I could improve decision making within my company? These can be from things around customer behavior analysis, or predictive analytics. How do I understand where people are moving? If you think about it in the case of a quick serve restaurant, where are my customers going? What are the things that attract a certain location? What causes something to be successful? These are all things that they want insights on, as they think about where do I put my next store? Or where are the areas I should invest in to drive more customer engagement?

**[00:19:07] KP:** So, the COVID pandemic has affected a lot of people. I guess, it doesn't necessarily need to have affected Foursquare directly in that location services are still necessary. But I imagine you've seen or are seeing changes in the way people consume them. Is there anything specific to the pandemic that is affected the way people use Foursquare?

**[00:19:28] AP:** As the pandemic started, I think there was a lot of limited or lesser movement of people in terms of the the restaurants they visited. A lot of things had moved to online, food



ordering, delivery, being able to do Zoom calls and Google Meets instead of interacting together. What we've seen over the last six to nine months as vaccine rates have gone up, people are exploring the world again. They're doing this at incredible rate. They want to meet. They want to be able to grab a meal together. They want to visit their favorite venues as they had before. And so, we're seeing very strong recovery from a wide variety of businesses across the globe.

**[00:20:11] KP:** When you build a builder's culture, you've got to be welcoming to the people who want to build that includes, good documentation, clean API's, all these sorts of things. Do you have any guiding principles or heuristics on how to do that effectively?

**[00:20:27] AP:** One of the best ways of understanding if you have a product that's usable, and easy, that it's intuitive and easy to use, is be a user of your product. When's the last time you built something using something that your team, or your company has delivered out to customers? For me, one of the areas I spend a lot of time on is not only how do I onboard on to a product, but how do I make use of it? What are the things that allow me to build something in a way that's intuitive? I think one of the things that we often get caught up on is we need to have the best documentation.

But the reality is, documentation, if you build products in a way that are intuitive, that you asked for information as it's needed, you probably don't need as heavy – you don't need as rich of documentation, as you would expect. And so, often times, I'm a big advocate of use your own products, understand, are you able to give the user information when they need it? Are you able to help them through the journey of signing up for a product and actually making use of it? Do you have the metrics for it? Can you look at data to help understand where in that journey are your customers being confused? I think over time, if you look at those metrics, you'll refine your process of building more intuitive onboarding, more clear and succinct documentation, and better forums for people to ask questions when people are trying to build things on top of what you do.

**[00:22:10] KP:** I'd love to do a deep dive onto some of the specific services. I don't know if you have a favorite, but I've had some good uses of the Places API in the past. I'm curious if you could share with the listeners, what it is and what sorts of data are available there?

**[00:22:26] AP:** Yeah, so the Places API is built – or Places consists over 100 million points of interest source globally. Our API's allow you to ask questions as, can I get the information of a particular venue? Tell me things that are nearby this geographical point. Tell me what are things that would be open or closed based on where I'm at, and then the given point of time. And so, what we try to do with the Places API is to make it really easy for app developers to directly use the API's to access this vast amount of venues across the world.

**[00:23:07] KP:** I can see a lot of interesting use cases for let's say, a mobile app developer. I'm going to develop something and helps friends get together and plan an afternoon. This could be a great way I could find out about locations that are specific to where those people live, give them some suggestions and that sort of thing. Is that a typical use case that you have these real time queries? Or are there other more common use cases I'm not thinking of?

**[00:23:34] AP:** No, you're right. We have a lot of real time queries that help app developers provide irrelevant information to their customers. We also enable use cases where you think about mapping apps, where are things around me? How do I explore that? Food delivery apps. I want to be able to go from an address to an actual point of interest. Restaurant reviews, what's nearby? What's available? What is the information that's relevant for this particular restaurant? And so, all of these things make up our customers in terms of our broad API customers for Places.

**[00:24:14] KP:** Is that an appropriate tool for someone doing some large-scale analysis? Maybe I'm thinking of launching some sort of national coffee chain and I need to know something about the locations of Starbucks because that matters to me, and where I'm going to put my stores. Would Places be the right tool for me?

**[00:24:32] AP:** When you think about analytics, and being able to do analysis over large datasets, the easiest way to access that information comes from directly ingesting our Places dataset. So, we have two datasets that we produce for customers. One is Places, which is the points of interest, and the other one is Visits, where are people visiting?

One of the interesting opportunities we have now with Unfolded. So, Unfolded does large scale data analysis. You can join data that are extremely large, and you're able to visualize that data

and do analytics over it, is that it opens it up for data scientists, business analysts, non-technical audiences to be able to analyze and do trend analysis or correlation with other factors to understand what insights I want to get to power my business decision making.

**[00:25:27] KP:** Makes sense. Could we expand a little bit on the Visits tool? There seems like some neat ideas there, and I've already had a few thoughts of my own of how I might use it. What kind of things do I get in services that are available under Visits?

**[00:25:42] AP:** With Visits, we provide a data set that allows you to understand where customers are moving around in the globe, what venues they're visiting, what's popular. We provide information that helps companies understand where to build their next site. What are my customers in this type of segment doing? What other places are they visiting? So, it's the intersection between the real world and how customers are moving through it. So, the possibilities are almost endless. You can start off by thinking, we help power insights from what are my customers doing to where are they moving to? What are locations that are driving an increased set of population and as such.

**[00:26:33] KP:** I love to keep exploring the products and just get a sense of what the tools are I can build with. I don't think we've talked about the Pilgrim SDK yet. What does it do for developers?

**[00:26:44] AP:** Pilgrim came from the concept of, we have customers who have applications, they build location powered applications. One of the things that it's a really hard problem that we call the blue dot problem is, GPS is inherently flaky. Depending on the location where you're at, you could have GPS coordinates that are could be completely wrong, up to 150 meters from the actual location. So, what we provide is what we call snap to place. We look at multiple sensors, and we use the information we have, from our own owned and operated apps to accurately determine where a customer is in the world. So, from that, customers are able to power use cases such as ride pickup, or understanding how far another venue is from where the customer is located, or be able to do real time advertising or deal promotion to the customer as they actually walk through the store.

**[00:27:48] KP:** Are there any particular implementations or users that have a really novel way of consuming the Foursquare services that you could highlight?

**[00:27:56] AP:** I think an interesting one for me, personally, as we're going to a culture of, we love to take photos, and we go around the world. And often times, it's super important to be able to keep location of where the photos we are. But we're now introducing the concepts of AR where you can suggest location-based filters. So, for example, if you're in front of a Macy's building, you can now have filters that are based on, I was at Macy's. And so, there's this intersection of being able to create content based on the location and where you are in the world.

**[00:28:34] KP:** So, AR seems to me like it's certainly growing. I don't have any particular stats, but I also feel like it's not yet on fire. We're probably early in the hype cycle early in the cool novel innovations that are to come. Do you think that's a limit of the technology or is that a limit of creativity?

**[00:28:54] AP:** I think it's a combination of both. Last year, we created a product called Marsbot for AirPods. And the idea behind that was the most ubiquitous hardware available for AR is actually headphones and it's not the camera. We built this application that made it really easy for consumers to be walking around and getting tips and hints. It's very interesting use case, because it's about proactive communication, telling you things about what's available or what's around in a neighborhood you may have not been.

So, my view is we're still as a society trying to figure out how do I leverage this technology in a way that isn't cumbersome? It doesn't feel unnatural. It doesn't feel like I have to pull up a phone and be able to disengage from the world wall that I'm in. So, we're just starting that journey around AR and making it easy for us to be able to include AR in our normal lives.

Interestingly enough, AR has actually, outside of the consumer world done very well. There are numerous use cases around companies using AR for worker safety, or training, where you're wearing a fairly large helmet, but it allows you to train employees in real time and provide feedback. And so, I think there's a lot of interesting use cases that are emerging already, because the technology is good enough in the enterprise space or in the manufacturing space.

But it's too early in that journey to be able to do this. Well, the technology hasn't matured enough and been functional enough for us to be able to use it in our everyday lives, in the consumer space.

**[00:30:56] KP:** Definitely, yeah. I think in many ways, we're still in early days. I mean, maybe QR codes have reached their peak, but I think they'll still be around. There were technologies like near field communication, which I still think is interesting, even though it hasn't really taken off that much. Are there any things in AR that you're watching that you're excited about?

**[00:31:18] AP:** I think one of the big things that I'm interested in, and this comes from my experience in IoT, is the cost of sensors has gone down tremendously and it'll continue to go down. We can produce now a sensor under a few pennies. There are very interesting technologies around low band radio frequency. And so, we're not far away from being able to put sensors on anything. This can be packages. It could be from the milk we deliver, or to that product that sits on a shelf, and we'll be able to now be able to solve problems around, you know, supply chain and optimizing it in even world hunger, where we're more efficient in making sure the food that we produce is actually used and consumed before it goes bad.

**[00:32:08] KP:** I'm curious if you can share anything about what your plan is for Foursquare? What will be some of the areas you'll focus on?

**[00:32:16] AP:** What I'm looking to do at Foursquare starts from an organizational standpoint. How do we build engineering leadership in a way that allows engineering teams to own and drive improvement? So, we're going through that right now. We just went through some unprecedented acquisitions and mergers over the last 24 months. What I want to be able to do is the company should feel like one startup versus three companies coming together. So, I'm directly spending a lot of time with the most senior engineering audiences to go solve some of the hard problems of how do we simplify our architecture in a way that enables us to move faster, have better testing, and allows us to beam to create new products without having to spin up entirely new teams to go do that?

**[00:33:13] KP:** I think that's a fairly common challenge a lot of companies face. Do you have any, I don't know wisdom, or guiding thoughts on how you plan to get there?

**[00:33:25] AP:** There are a couple things that I've learned over my time in software. The first is, we often look at migrations as something that we should shy away from. I view migrations as a great way of getting rid of technical debt and moving things in a step function. Part of what I view as we bring these three companies together, is to think about what are the common problems we need to go solve? How do we define a preferred way of doing something? Building that reusable component, and then enabling teams to migrate to that common technology stack.

By doing so, we actually build much more resilient software. We can invest in one place, and that benefit is spread across too many of our products. So, for me, one of the areas that I think are really important is for every company to look at what is slowing them down? What feels expensive? And make that a priority. How do you make it so that you can experiment? How can you make change in a way that these changes can happen weeks and not in months, which typically happened because we complexify architectures over the years?

**[00:34:45] KP:** So, if complex architectures the cause, do you want to simplify the architecture or do you want to come up with a better deployment process to support it?

**[00:34:55] AP:** I think you need to look at both. On one side, you can say, "I live with the complexity I have. And now let me build better tooling. So, that we abstract out that complexity from the things we need to do." That's extremely valuable. But on the other end, you have to question, do we need this complexity? When you think about a product, it starts off usually not being complex. But then we add features. We add use cases. The original intent of that design may not hold five years down the line. So, I always find it worthwhile to step back and look back at the requirements of that system, and see if there's a simpler way of building that product. Simple products are easy to understand. They're easy to make sense of, and they enable you to move much faster, because as you bring on someone new to the team, they don't need to understand all that complexity that exists.

**[00:35:59] KP:** Well, you'd mentioned over the last 24 months, there were some A&M activities. Could you discuss a little bit about the ways in which the team is growing?

**[00:36:09] AP:** Sure. So, over the last 24 months, we had done an acquisition of Placed from Snap. We had merged with Factual and we just acquired Unfolded a few months ago. As part of these mergers and acquisitions, we feel we have all of the core building blocks to provide a complete location intelligence platform. From a product standpoint, we are fully integrated. Customers are able to use any one of our products, and are able to solve problems for their customers. What we are looking to do on an engineering standpoint, is how do we now build new products based on the building blocks from the companies that we've built and acquired? How do we drive innovations and data science that allows us to drive benefits across any number one of our data products? How do we enable analysis and analytics over our data sets, so that customers who don't come from a technical audience or don't have data science teams can leverage this data for better decision making?

**[00:37:19] KP:** Well, if there's a vision to expand on those services, and build on top of them, I'm curious if you'd be comfortable comparing and contrasting something like Amazon, obviously, they're in cloud computing, not focused on location services like you guys, but they are spinning up new services all the time. I don't think anyone could name all of them. What will Foursquare look like in, I don't know, five years?

**[00:37:42] AP:** AWS is a great example of, when it started out, there were two main components, storage and compute. And from that, they have built out I think, now hundreds of services, ranging from customer service tools, to productivity tools, in video, in video chat. The where we look at Foursquare is, we are a platform that enables companies to make better decision making. It can be through the advertising. We're a location intelligence platform that enables customers to make better decision making. From that, we have vertical specific solutions like advertising that enable them to communicate and reach out to the relevant audiences, they want to.

As we look at our enterprise offerings, we provide datasets and API's to access our Places and Visits products. I can see us over time, creating more and more vertical specific solutions that solve customer problems without them having to do all the heavy lifting. So, we share that same view as from AWS, that we want to enable companies to do more by actually doing less. And we want to be able to remove that heavy lifting so that companies can iterate and move faster for their own customers.

**[00:39:07] KP:** We've talked a little bit about the entry point for enterprise users. To wind up, can you tell me a little bit about the story for young entrepreneurs and startups? What are some of the ways in which you see a company like that being able to take major advantage of the data Foursquare has to offer?

**[00:39:25] AP:** I talked to many young entrepreneurs, every week even. And I would start off by saying, go on to foursquare.com. Look at our developer API's. Those API's, if you get a free account are all free. You can use it to actually build intuitive experiences for your customers. We're always thinking about how do we provide an app experience that allows people to explore or see? And we see this happening through this last six to nine months, as people are returning to the venues they love. I think there's a big area for entrepreneurs to invent new experiences that allow people to share interests, communicate, and meet. As you think about this, I think the product offering we have with our enterprise API and developer API's, will enable you to build a rich user experience in minutes, if not tens of minutes.

**[00:40:28] KP:** Well, as you'd mentioned earlier, Foursquare is a new venture for you. Can you talk a little bit about how your approach to problem solving has evolved, you taking this on?

**[00:40:37] AP:** As many of us do, we start with focusing on errors that are particularly interesting or hard. We look at it as a challenge, something we can go solve. I've learned that there's a lot of problems we can solve more than we have time to. In fact, one of the key learnings I've had is strategy is not what you say yes to, but you say no to. I focus a lot of my time at Foursquare on customers and working back from them. What makes customers awesome are, they're opinionated, they use your products, and they're never fully satisfied. I make it a focus, to spend time with customers. I pick up the call, I listen in to a customer problem, or my most preferred way is working alongside them to build product.

**[00:41:25] KP:** Well, Ankit, thank you so much for taking the time to come on Software Engineering Daily.

**[00:41:31] AP:** Thank you so much. It was great to talk with you and I really appreciate the opportunity to talk to your viewers.



[END]