EPISODE 1035

[INTRODUCTION]

[00:00:00] JM: Food delivery apps have changed how the restaurant world operates. After 7 years of mobile food delivery, the volume of food ordered through these apps has become so large that entire restaurants can be sustained solely through the order flow that comes in from the apps. This raises the question as to why you even need an on-prem restaurant.

A cloud kitchen is a large, shared kitchen where food is prepared for virtual restaurants. These virtual restaurants exist only on mobile apps. There are no waiters. There are only the food delivery couriers who pick up the food from these warehoused-sized food preparation facilities. A virtual restaurant entrepreneur could open up multiple restaurants operated from the same cloud kitchen. The mobile app user might see multiple restaurant listings. It might be a pizza place, a cookie bakery and a Thai food restaurant, when in fact all of them are operated by the same restaurateur. The word of virtual restaurants and cloud kitchens is very new, very interesting and it's a very big market.

Ashley Colpaart is the founder of the Food Corridor, a system for cloud kitchen management. Ashley joins the show to talk about the dynamics of virtual restaurants and the cloud kitchen industry.

We are in the midst of the COVID-19, and a group of developers has created a hackathon called CODEVID-19, which is a pandemic hackathon. The goal is to create solutions that help people manage and survive during the COVID-19 pandemic, and they're using the hackathon platform that I've built, called FindCollabs. If you're interested in hacking on ideas related to COVID-19, you can go to codevid19.com or you can go to findcollabs.com and enter into the hackathon there. There are projects that are looking for volunteers and also there are volunteers looking for projects.

[00:00:00] JM: Food delivery apps have changed how the restaurant world operates. After 7 years of mobile food delivery, the volume of food ordered through these apps has become so large that entire restaurants can be sustained solely through the order flow that comes in from the apps. This raises the question as to why you even need an on-prem restaurant.

A cloud kitchen is a large, shared kitchen where food is prepared for virtual restaurants. These virtual restaurants exist only on mobile apps. There are no waiters. There are only the food delivery couriers who pick up the food from these warehoused-sized food preparation facilities. A virtual restaurant entrepreneur could open up multiple restaurants operated from the same cloud kitchen. The mobile app user might see multiple restaurant listings. It might be a pizza place, a cookie bakery and a Thai food restaurant, when in fact all of them are operated by the same restaurateur. The word of virtual restaurants and cloud kitchens is very new, very interesting and it's a very big market.

Ashley Colpaart is the founder of the Food Corridor, a system for cloud kitchen management. Ashley joins the show to talk about the dynamics of virtual restaurants and the cloud kitchen industry.

We are in the midst of the COVID-19, and a group of developers has created a hackathon called CODEVID-19, which is a pandemic hackathon. The goal is to create solutions that help people manage and survive during the COVID-19 pandemic, and they're using the hackathon platform that I've built, called FindCollabs. If you're interested in hacking on ideas

[SPONSOR MESSAGE]

[00:02:20] JM: Over the last few months, I've started hearing about Retool. Every business needs internal tools, but if we're being honest, I don't know of many engineers who really enjoy building internal tools. It can be hard to get engineering resources to build back-office applications and it's definitely hard to get engineers excited about maintaining those back-office applications. Companies like a Doordash, and Brex, and Amazon use Retool to build custom internal tools faster.

The idea is that internal tools mostly look the same. They're made out of tables, and dropdowns, and buttons, and text inputs. Retool gives you a drag-and-drop interface so engineers can build these internal UIs in hours, not days, and they can spend more time building features that customers will see. Retool connects to any database and API. For example, if you are pulling data from Postgres, you just write a SQL query. You drag a table on to the canvas.

If you want to try out Retool, you can go to retool.com/sedaily. That's R-E-T-O-O-L.com/sedaily, and you can even host Retool on-premise if you want to keep it ultra-secure. I've heard a lot of good things about Retool from engineers who I respect. So check it out at retool.com/sedaily.

[INTERVIEW]

[00:03:58] JM: Ashley Colpaart, welcome to Software Engineering Daily.

[00:04:00] AC: Thanks for having me.

[00:04:01] JM: There are a variety of ways that I can order food on my phone these days. I've got Uber Eats, and DoorDash, and Postmates, and these apps first came out 6 or 7 years ago, and I was just ordering food from normal restaurants. A courier was picking up the food from the restaurant, but today the market has matured and it's gotten more sophisticated. How has the world changed due to the fact that there's so much volume going through food delivery apps?

[00:04:30] AC: I mean, I don't know if I even have the answer to that. It's like there's more on-demand couriers and workers that are able to kind of make their own hours, set their own hours and work when they feel like it, and there are more people that are able to get a pizza or a sandwich or a sushi brought to them at any place in their community without having to leave their office or the park or wherever they are. It's a convenience economy and people are able to just get what they need when they want it, and that's the biggest change. I think that's the society is feeling.

[00:05:05] JM: Could you explain the term cloud kitchen?

[00:05:08] AC: Sure. Like you mentioned in the question, is people – Typically, restaurants would produce food for delivery and it would kind of coming directly out of their restaurant kitchen. But with the rise in delivery and the rise with demand and delivery, restaurants are feeling strapped and constrained by that rise, because most restaurants are not designed for delivery. They're designed for in-restaurant dining. It's just a different model.

The idea of a cloud kitchen is to really centralize the production of food producers so that it's easier for delivery drivers to pick these things up and deliver them direct to consumers. A lot of the times, the larger companies are playing with data. There's seeing a large demand through these delivery apps for specific types of food and they're able to cater to that demand by creating what they call virtual restaurant concepts that may exist only in the cloud. They may just be a brand that exists only in the cloud that delivers food and/or they could be a restaurant that needed to expand into delivery, and so decided to rent a kitchen space offsite, off-premise from their restaurant. They keep the same brand. They optimize their menu for delivery, but they're doing that production on a large facility. You can kind of think of a warehouse that has multiple kitchens units in it and you can imagine multiple brands making multiple types of food under one roof.

[00:06:43] JM: These kinds of giant industrial warehouse kitchens where today there can be multiple virtual restaurants existing in them, did these kinds of warehouse-sized kitchens exist before there were food delivery apps and the desire for these cloud kitchens?

[00:07:01] AC: Yeah. I mean, I think that the original version of this concept was the mall food court, where you could bring a family of 5 to the mall food court and your daughter wants a hotdog and you want chicken tenders or Mexican food or whatever and you're able to kind of get all of those places from one food court. It's a little similar to that, except that the pick-up option tends to not be existent in these facilities.

I would say that was like the first version of that. It's also funny, having a new term coined by the industry, so the cloud kitchen or the ghost kitchen or virtual restaurant. Those are like technical branded terms for something that's existed a long time, which is the idea of a commissary kitchen, which is just a centralized location for mass food production. Those have existed since

we started having the necessity for licensed commercial spaces that are licensed by the health department.

[00:08:00] JM: Can you tell me about the business model of these warehouse kitchens?

[00:08:05] AC: Sure. There are a couple of different models that are trying to gain some market traction right now. One would be the warehouse model where there's, again, multiple brands under one roof, but they're renting out these spaces to an existing brand and the brand rents the space and access to the distribution channels and technology just so they have a term key situation for which to sell this food as an extension of their existing brand.

Another model that is emerging is the facility itself is an umbrella company for their own brands. So you might have kind of a wing shop and a burrito place and a sushi restaurant, but they're all owned by the same kind of restaurant group or LLC that oversees the facility and they are optimizing their menus and optimizing their production and menus based on the concepts that they have under that roof.

[00:09:07] JM: Some of the food that I might order from a food delivery app, some of it might come from a virtual restaurant that runs entirely out of these warehouse kitchens. When did we start to see virtual restaurants start to appear on these apps, like Uber Eats? When did it start to be the case that I'm not necessarily ordering from a restaurant?

[00:09:33] AC: This is somewhat of a new phenomenon. This is kind of more in the last 3 to 5 years. I think New York City was the first place that it saw the rise and the ability to do this and to optimize for it. Since then, as the VC money starts flowing in and the concept starts to gain traction within the business world, you start seeing them popping up kind of all over the place. The problem is or a concern is to the consumer. It's difficult to tell where your food is coming from, and this is kind of at odds with the consumer demand of wanting at the same time to have more knowledge about where their food comes from. That disentanglement and not knowing is this coming from an existing restaurant? Is this coming from a commissary kitchen? Is this coming from a cloud kitchen or, frankly, is this coming from somebody's home kitchen where they're just producing it at home and then hopping on one of these delivery apps? It's kind of hard to tell and we don't really know that there's a lot of looseness happening with it.

[00:10:30] JM: Let's say I want to set up my own virtual restaurant today. Let's say I have an idea for a restaurant that serves exclusively to toast. It serves cheese toast, cinnamon sugar toast, French toast. I want to get started immediately. I want to start as fast as I can today to start selling my toast. What's required to set up a virtual restaurant for me?

[00:10:55] AC: The first thing you'll need is a business license or an LLC to kind of operate legally. As a producer, if you are going to be the one that's going to be preparing the food, you'll need to get a food handler card and legally have the adequate food service training that your health department requires. You then need access to a licensed commercial kitchen space, so an existing kitchen that is licensed to produce food. Often times, folks would like rent commercial kitchen space from an existing restaurant that had time when it wasn't operating or you can use what's called a shared-use kitchens where the business model is to rent out space, so commissary kitchens, shared-use kitchens kind of in the same thing, but they allow you to rent hourly, through monthly plans, and then you can access that space. You will then want to kind of optimize your menu and figure out where you're going to buy your food from. Have that food delivered to the kitchen and on-hand so that when you are ready to operate, it's there. Then you hop on one of these sites and you create an account with the delivery app so that you can post your menus and post your hours and then sit around and wait for folks to find you if you haven't put in a lot of the legwork to have built your brand up so that folks know who you are and what you are.

A lot of the value that these aggregators bring to a new brand that might be trying to gain traction is visibility to a broad base of consumers that are hungry. So when you're searching for something to eat and I see your toast company and I'm hungry and I was craving toast, I can search for toast and find you.

[00:12:40] JM: What kind of deal does my virtual restaurant make with the warehouse kitchen?

[00:12:50] AC: Oftentimes, those are going to be like long-term leases with they're leasing the space for their production. There's usually a monthly lease. Then there's often times a lease or some sort of contract around the data and access to the platforms as well.

[00:13:07] JM: What about with the food delivery apps? What kind of relationship do I have as a virtual restaurant with the food delivery app companies?

[00:13:14] AC: I don't know if I know the answer to that, but I think they're all changing. They're all trying to optimize that relationship. I think you're using a third-party application to essentially mark your brand through their app and then there is a percent of anything that kind of flows through that that you're paying to that app for them connecting you with the consumer demand.

[00:13:37] JM: You run a company and you make software called the Food Corridor. This is software for shared kitchen management. Explain what your software does.

[00:13:47] AC: Sure. We are essentially an ERP for the shared kitchen industry. As I mentioned earlier, the idea of a shared kitchen is not a new phenomenon. These types of kitchens have been operating for decades based on the idea that in order to sell food to consumers, you need to produce it in a licensed, commercial facility. Often times these can cost over $50,000 to build on your own or outfit, and if you are just getting started as a food business or seasonal food business, it doesn't really make sense for you to pay for that type of capital and infrastructure.

The idea of a shared space is much like the co-working spaces that you share the cold storage, you share the freezer space, you share the docking, you share the dry storage and then you're renting the facility and booking time in that kitchen when it's available and you operate during those times.

What are software does is kind of manages the backend relationship between the owner of the kitchen and the food businesses that rent from them. We essentially allow for scheduling and booking. We do compliance document management for managing the business license, the insurance and the food handler card of all the renters. We also manage the billing and allow for monthly plans and added fees in storage so that they can manage that relationship and kind of get out of the office and back into the kitchen to support those food business and the businesses that are operating out of the facility.

[00:15:14] JM: The customer is the warehouse kitchen itself.

[00:15:19] AC: Yeah. The customer is the shared kitchen themselves, yeah. The owner/ operator at the kitchen.

[SPONSOR MESSAGE]

[00:15:32] JM: Gauge and Taiko are open source testing tools by ThoughtWorks to reliably test modern web applications. Gauge is a test automation tool that makes it simple and easy to express tests in the language of your users. Gauge supports specifications in markdown, and these reusable specifications simplify code, which makes refactoring easier and less code means less time spent maintaining that code.

Taiko is a node library to automate the browser. It creates highly readable and maintainable JavaScript tests. Taiko has a simple API. It has smart selectors and implicit weights that all work together to make browser automation reliable. Together, Gauge and Taiko reduce the pain and increase the reliability of test automation.

Gauge and Taiko are free to use. You can head to gauge.org to know more. That's G-A-U-G-E.ORG to learn about Gauge and Taiko, the open source test automation tools from ThoughtWorks.

[INTERVIEW CONTINUED]

[00:16:47] JM: How did you get connected with all these different kitchens and how did they become your customers?

[00:16:53] AC: That's a really great question. I didn't come to this wanting to like solve a problem. I found a problem that was in need of solving. My background is in food and food systems and I was working on my PhD dissertation at Colorado State in Fort Collins, Colorado, and I was essentially researching underutilized assets in the food space. With the desire of finding novel ways to connect underutilized assets with food producers to help support local food development and local food economies. I landed on the shared-use kitchen model at this time when co-working was becoming more and more popular and a more novel idea, and I was really kind of seeing that in order for a new food producer to gain traction and become a national

brand, they needed to start in one of these places and they needed somewhere to start. That was a compelling story to me.

I ended up surveying 140 of these shared-use kitchens across the country to really figure out who they were, why they do what they do, what their business model was and just kind what the state of the industry was. In the survey, I started realizing trends across kitchens where their business models were all very similar. Their operations were very similar, but they also had very similar pain points and they were all just like craving solutions for a very kind of managing a multitenant situation can be pretty overwhelming and many of them were overwhelmed and many of them were hacking together other business solutions and other softwares that just were not specific to the industry.

My original idea for the company was like an Airbnb for commercial kitchens, is can I connect food entrepreneurs that need access to commercial space with these existing spaces and make that more of a marketplace for these kitchens? As you probably know and your listeners know, building a marketplace businesses one of the hardest business models to figure out.

I just really started with the kitchen side and had them show me their business processes and what their needs were. I partnered with 13 of them. Beta test it, build the software, iterated and then took it from there. We're now about four-years-old since those beginning times.

[00:19:10] JM: Is your long-term goal still to do a marketplace kind of company?

[00:19:16] AC: It is, and it's funny how you start with one side and then you see that side really needs that demand anyway. A couple years ago we launched another site, our sister app, called the Kitchen Door. We had the Food Corridor, which is the ERP for shared kitchens, and then we have the Kitchen Door, which is where the food businesses can search and find commercial kitchens in their area. We basically took all the kitchens that we know in our universe clients and non-clients and put them in a database so that people can find them.

What we're now doing is the number one lead gen site for finding shared-use kitchens and we're able to send those leads directly to our clients as well as folks we want to become our clients.

[00:19:59] JM: It's pretty interesting. What are the gaps in making that two-sided marketplace work today?

[00:20:05] AC: That's a really great question and it's actually one of the problems that we're looking to solve right now. Right now, we have the back office solution for the Food Corridor. We have 170 kitchens that are using that software and they're renting out to 9,000 food businesses.

What's missing from a product standpoint is the connectivity between the Kitchen Door, the leads that come through the Kitchen Door and the actual backend software. The software has an embedded CRM or a CRM component to it where they manage clients. What needs to happen in my view is the connectivity between the clients that are coming in through the Kitchen Door all the way through the business process of the kitchen until they become a client and are activated and are managed within the software.

We're kind of working backwards into that now and are able to kind of think about ways to create a more marginalized product that services folks that only want leads but don't need the software yet, and over-time you send them enough leads over-time, they start having the same pain points as these other kitchens and then they need to graduate into using the software because we've essentially manufactured the pain point for them at that point.

[00:21:25] JM: If I understand correctly, the way that you are developing the market is you first have gotten the industrial kitchens on board with your ERP software that helps them manage things like licenses and oversee the tenants who are in the industrial kitchens. Then over-time, as you build up enough kitchens in your clientele, then you can – Well, you've set up this other website called the Kitchen Door, and virtual restaurants that want to find the industrial kitchens space, they can log in and they can see the industrial kitchens that you have already onboarded into your ERP software and then you can make the connection between them.

[00:22:14] AC: Yeah. That's pretty much exactly right with one caveat, is that the Kitchen Door software is all the kitchens that we know exists that are renting out space to food businesses. Preferred listings on our site are clients of the Food Corridor. We obviously want to promote them because they are our clients and it's advantageous for us to send leads to our clients. We

kind of give them the preferred listing rankings and showing up first, but the whole world of kitchens that we know about can come to Food Corridor and create a listing for free. That ends up being advantageous for us as well and interesting for us because we are the number one ranking place to find shared kitchens. So all the search engines are – If you're searching for commercial kitchen space, you're more than likely going to find the Kitchen Door. It's going to rank.

If you are a kitchen that doesn't use Food Corridor, never maybe heard Food Corridor before but you start marketing your kitchen by creating a listing on the Kitchen Door, then we find out that you are out there and that you may be our shared kitchen. We start sending you leads, and then over-time we build a relationship with you and say, "Hey, we're sending you these leads and we hope that that's helpful. We also have the software that might be helpful. Would you like to take a look?"

They end up kind of in our pipeline and in our community of shared kitchens, and we do a lot of other kind of thought leadership stuff around this too. We provide a ton of resources for folks that are interested in starting shared kitchens. We have a 160-page toolkit that folks can use to kind of get started. We sell an operations manual for kitchens that are just getting started that need to kind of have those operations running from the get-go. Then we also facilitate an online community called the network of incubator and commissary kitchens, which is the largest network of shared kitchens in the world. We facilitate that group to kind of create a community around these folks, because going back to a long time ago to my dissertation research, one of the open-ended questions I had asked these operators was, "Is there anything else I need to know?" Most of them used that opportunity to say, "Well, I wish there was a place we could go to learn from each other and I wish I could ask other kitchen operators how they manage XYZ."

Basically, they were craving a community of practice to kind of more formalize their business and be able to kind of create that industry expertise and best practices. We also facilitate that online community for them. We're very much a give first kind of company. We realized this is growing community and industry, and by providing best practices and resources, connectivity and software, we're able to kind to help the industry materialize.

[00:25:06] JM: Can you tell me more about the life of a virtual restaurant? I don't know how much of that market you've seen, but I guess I'd like to know how quickly do they get started up and how quickly do they shut down? Do they move between different kitchens? Are they A-B testing their menus? I guess I just like to know what life is like as a virtual restaurateur.

[00:25:31] AC: Yeah. I think it's a good question. I think it's a newer question to ask. Most of the food businesses that are operating out of our shared kitchens are chefs, caterers, food trucks, product manufacturers, beverage producers, all kinds of different food entrepreneurs that need access to these commercial spaces.

The virtual restaurant in essence is a little bit more of a nuanced thing. It can be, for instance, a food truck that operates during the summer season and the spring season at places all around town, but then in the winter, the events go away and they may not – They still have brand recognition within the community, but they may not have a place to be parking to have the foot traffic for folks to be coming by and eating their food from their food truck.

The virtual restaurant could be an opportunity for them to extend their – Do season extension and deliver from the facility itself that they're producing that food ad versus on-demand from their truck. Does that make sense?

[00:26:36] JM: Yeah, it does.

[00:26:37] AC: Yeah. If you're just going to take a virtual restaurant that's an existing brand, so the existing brands tend to have better opportunities for success because they already have fan base and a following and have built that rapport with their clients and their clients know what to expect.

If you're going to order from a brand that exists in your community that you've eaten at that restaurant before and you're going to order that online, you know what you're going to get. If you are virtual restaurant concept that's just going to start, is going to rent commercial kitchen space, is going to go through all the steps that I outlined earlier and then just kind of turn on on a Friday night and see if you get orders, it's going to take you a lot longer to build that rapport and that following and that consistency with a clientele to find success. There're a lot of things

that play there around visibility and connecting with clients, which a lot of existing brands are going to have a leg up for that.

[00:27:38] JM: Can you give me more detail on what the software, the ERP software, for these industrial kitchens does and how it works?

[00:27:49] AC: Sure. Essentially, the software at its base is a scheduling software. We allow the kitchen operator to create a multiunit calendaring system where they may have 10 different kitchen units within a facility. So kitchen A, kitchen B, kitchen C. They build those calendars out. They can then add a reservable equipment. Often times, a specific type of business might need a Hobart mixer, which is a large industrial mixer that they may need for baking. So they can book space A and then add a piece of reservable equipment for an additional charge from 9 to noon of their booking. Then they also can add their storage inventory. Often times, these kitchens are not only renting hourly the kitchen spaces, but they're also need to rent out storage capacity so the food businesses need places to store all of their food for food safety reasons. So there's a dry storage component. There's a freezer component. There's a refrigerator component and they're often renting out units of storage to those folks who were able to kind of do storage utilization and apply those at the client level to the renters.

Often, clients will be on monthly plans. So you put them on a monthly plan. They'll prepay for 10 hours in the kitchen and then they'll book time on the calendar. As the client books that time on the calendar, the system will track those hours. If they go over there hours, the system automatically take in an overage rate for the remainder of those hours. Then we do a billing once a month. We bill all the clients, or they can bill on-demand through the system. We're connected with Stripe and Stripe Connect for our payment processing and the kitchens can actually just be completely hands-off as it pertains to collecting payments from their clients, which is super advantageous with them collecting their cash flows early on in the process.

Then the client management side of it is a lot around notifications from the system, messages from the kitchen administrator to the clients within the app, as well as managing their documents. Making sure they're complying in the kitchen. We have a document compliant system where the food business uploads their business license, their insurance, their food handler card, contracts, things like that, and all of that is also stored at the client level and at the

kitchen level for the administrator. Basically, it's kind of putting all of those things in one place so that they can manage everything when they login versus everything being in all these different places.

[00:30:19] JM: You bootstrapped this business initially, right?

[00:30:23] AC: Yeah, I did. Yeah. Going back, we beta tested with those 13 kitchens and then we were like, "Is this something you want to buy?" and they were like, "Yeah, we want to buy." We give them friend of the Food Corridor rates in the beginning and, yeah, the first monies into the company was from a little bit from my dad to kind of start my legal up going and then $20,000 early on from savings. Yeah, I brought on a technical cofounder to help me build out my vision, because I'm not the technical side of the product. I'm the kind of thought leadership and vision side of it, the CEO. My technical cofounder help me build kind of version 1 of this software and basically I was all sweat equity until we got to a place that we had enough traction that we could raise a small seed round and kind of take it to the next level.

[00:31:13] JM: What's been your experience in growing the product and evolving it as you collide with the market that's growing?

[00:31:22] AC: Yeah. That's a really great question. Again, going back to what I said like from philosophical standpoint, like I started this company because I was interested in local food and helping to support the local food economy. Our mission is always been to enable efficiency growth and innovation in local food. When I started the company, it's s like commercial kitchens are not sexy. These are like they're industrial places to produce food.

When I was first like raising my seed around, I was like telling people like, "No! This is an important part of the world and the market, and this is exciting," and people are kind of like, "Eh, it's not that exciting."

But then you see these really large rebranded as ghosts kitchens, cloud kitchens, virtual restaurant, and all of a sudden the money starts pouring in and it becomes a little bit more sexy, and now we're kind of hitting up against that.

One of the things that we've always tried to do is be true to ourselves and what value we're bringing into these operators. Again, we have the community of practice that we provide resources to. Their success is our success. We're a very client-centric company. So we take feedback from our users all the time. We integrate it into our product and we're constantly iterating on the product to really kind and make sure that we're bringing value to them and that we're solving their pain points every day. They've really told us what they wanted.

From the get-go, when I first beta tested with our clients, they were telling me, "This is how we run things. This is how I need it to be designed." Then we kind of built those best practices for the industry. That's kind of the biggest thing, is we're trying to stay true to ourselves and know that these shared kitchens that have existed for a long time were always part of this trend. They're multitenant situation renting out food entrepreneurs and they are a diversified group of food entrepreneurs. Again, they're chefs, caterers food trucks, product manufacturers. We have 9,000 food businesses that have accounts on Food Corridor that are all supporting their local food economy, and we feel like we're hitting our mission pretty well.

[SPONSOR MESSAGE]

[00:33:38] JM: Today's episode of Software Engineering Daily is sponsored by Datadog, a monitoring platform for cloud scale infrastructure and applications. Datadog provides dashboarding, alerting, application performance monitoring and log management in one tightly integrated platform so you can get end-to-end visibility quickly, and it integrates seamlessly with AWS so you can start monitoring EC2, RDS, ECS and all of your other AWS services in minutes.

Visualize key metrics, set alerts to identify anomalies, and collaborate with your team to troubleshoot and fix issues fast. Try it yourself by starting a free 14-day trial today. Listeners of this podcast will also receive a free Datadog T-shirt. Go to softwareengineeringdaily.com/datadog to get that T-shirt. That's softwareengineeringdaily.com/datadog.

[INTERVIEW CONTINUED]

[00:34:40] JM: The market is probably going to evolve in ways that none of us can anticipate, but we can make some guesses based on the actions of larger corporate players and people who've gotten funded significantly such as the Cloud Kitchens company. What are you seeing in terms of the larger corporate players?

[00:35:06] AC: We're seeing a lot of really interesting stuff. The larger corporate players are leveraging a lot of data. The cloud kitchen folks born out of the Uber brand, and so there is a lot of information from the Uber Eats, platforms that are helping to effectively identify trends and brand.

What's interesting is kind of backing into that. How it can get backed into? Let's say, on an Uber Eats application, there're a lot of people searching for Thai food in an area, but there is no one really to service that demand. What's able to happen is they're able to kind of reverse engineer the demand and say, "Hey –"going to an existing restaurant and saying," Hey, you make pizza, but if you were to make Thai food out of the back of your kitchen and sell it on our app, we have demand for you," and that's a really interesting way to kind of like double down on the infrastructure that already exist for a restaurant that just wants to kind of have this concept that exists in the cloud and double down on their potential sales for that night or that week. That's really interesting.

A lot of the larger shared kitchens are looking at existing brands because they realized that brand loyalty and that brand development, that's already occurred with existing consumer base, is really valuable and that they can get started from the get-go without having to build new brands.

Then in tandem with that, our folks that are like, "Well, we'll just create these suite of brands and optimize for that," and then in the back of the house they're able to use production, software and applications to help really get the unit economics correct and to really kind of make sure that they are spreading those ingredients and purchasing across all of the different menu items that it might exist under one roof. There're really a lot of kind of interesting efficiency gains and potential that are happening within these facilities.

[00:37:06] JM: Yeah. I love the suite of brands idea, like the fact that maybe I've got not just my toast restaurant, but maybe I also make non-bread, and I've got French toast, and these could all be different restaurants that could all be indexed under Uber Eats. Maybe it would cost me more money to have three or four different restaurants, but it's perhaps a better division than like if you go to one of those diners where you have like 12 pages of menu and it's like pastrami sandwich on one page, then it's like Chinese food on the next page, and then it's Italian food. When you see that many options in front of you, maybe it's all good, but you just don't trust any of it.

[00:37:48] AC: Right. It's like do one thing well, right?

[00:37:51] JM: Yeah. I like that the apps, even though it's an illusion, you get the illusion that they are doing one thing well with each restaurant.

[00:37:59] AC: Yeah, arguably. I mean, time will tell. The customers are going to be the ones that will decide. In the end, if it doesn't taste good and if it's not appropriately priced, it won't work. Mean, the taste and the price are always what customers are going to leave with. If you don't get those two things right, it won't work.

[00:38:20] JM: That's the thing, is like a lot of this food at least that I've ordered from the company is like the restaurants – I've never seen this restaurant in-person. This must be a virtual restaurant. Honestly, most of the virtual restaurant – Maybe I haven't had that much, but I haven't been that impressed. Have you been blown away by any particular virtual restaurant food the you've had?

[00:38:42] AC: No. I mean, I'm kind of with you on that. Sadly, I'm also a foodie. So I can be a little bit more snobby about this. But most of the time when I order take out, the quality is just not there. It's been sitting in someone's car. I mean, if you're really going to talk about the people, the industry that has mastered food delivery, it's the pizza industry, right? Delivery of pizza – I mean, the whole the whole pizza industry has been optimized for delivery and they're the ones that have figured out the boxes and the bags to carry it and keeping that temperature right and the distribution and the drivers and the routes that they take. They have really, really dialed that in.

That's not to say that it can't start happening with other types of food, but there's just more variables, a lot more variables than just pizza and one type of food. Optimizing for all those different variables and all his different cuisines and the quality of things needing to be crunchy, or chewy, or specific temperature in order to have such a magic moment with your food is really hard when you're taking it from the kitchen all the way to somebody's home.

[00:39:57] JM: What's been the hardest part of building the business thus far?

[00:40:02] AC: Oh! Golly! That's a great question. I don't know. I think maybe it's like almost like a philosophical question. It's kind of like am I doing the right thing? Am I making the right decisions? Am I taking advantage of the magic moment that's happening in the broader landscape with the trends that are happening right now? Am I doing right by my consumers and my clients? Am I hiring correctly?

We've stayed pretty small and nimble as far as like our team is concerned. I think it's mostly like an allocation of resources and am I pulling the right levers as it pertains to the business. Trusting myself I think is always a hard thing to make sure. That is a challenge. I get those moments where a client sends me an email and they're like, "God, I don't know what we'd do without you guys. You really understand what we're trying to do and you really care about our community and you'll are the best," or "You sent me two new leads this weekend both and both of them worked out and now we are at 70% capacity instead of 40." We're really young changing people's lives and helping people's businesses grow and sustain, and that's a really like fulfilling thing. I think you kind of keep that as your Northstar and some days are not perfect, but when you get an email like that, it just remind you why you do what you do.

[00:41:24] JM: You're from Austin, right?

[00:41:25] AC: Yeah. I was born actually in the Bay Area and was raised in Austin, Texas from the time I was six. I went to elementary, middle and high school in Austin, and then I kind of lived all over after that. I moved back to California, moved to Boston, and then landed out here in Colorado. Yeah, I kind of grew up in Central Texas.

[00:41:46] JM: Right. Yeah. I'm from Austin, and maybe I'm biased because I've just spent a lot of time in Austin, but Austin is a pretty unique food scene, right? Do you have any reflections on – I think Austin was kind of early to the whole food truck thing. Then you saw some restaurants that were successful enough is food trucks that they expanded into on-premises and they had Torchy's Tacos and it really blew up. But then they like kind of grew too fast and then they had to contract. It seems like there's some interesting restaurateur lessons to take away from Austin.

[00:42:20] AC: Yeah. There absolutely are. I mean, I'm so jealous. I miss Austin so much every day because of the food scene in Austin. There's just – It is one of the best food cities in the country, for sure, and there's so much going on there. But yeah, the interesting point about – I mean, South Congress and South Lamar had like those food truck kind of posts where there'd be like – Again, it's essentially like a mall food court, right? It's essentially like a virtual cloud kitchen with a bunch of brands under one place where consumers could go pick it up there.

It is the same concept. It's like consumers want a variety of things and that's compelling. It is interesting to see how the food truck is kind of the easiest form of starting a business, and essentially a virtual restaurant is a food truck without the truck. It's just taking that facility out of the equation and being right next to the consumer, adding the delivery for that last mile side of it. Yeah, a lot of things that have happened in Austin.

We actually held our food incubation summit in Austin last October and we were focusing – It was the food incubation, so it was the community of shared kitchens coming together to talk about their businesses and learn from each other. We focused on the CPG, emerging CPG movement happening in Central Texas in Austin. There're tons of consumer food products coming out of Austin. A lot of these larger kitchens are being built for the production of businesses as well.

[00:43:49] JM: There was a show we did a while ago about there were some marketplace. I can't remember what it was called, but it was a secondhand food market. Basically, you make too much food and you can offer like food on a secondhand market, basically, and other people can come and pick it up. Does it surprise you at all that there hasn't been a highly developed secondhand food market?

[00:44:13] AC: No. It doesn't surprise me at all. Yeah, like a leftovers market? I mean –

[00:44:19] JM: Yeah. I mean, that's the hot bar, basically. That's the hot bar at the supermarket.

[00:44:24] AC: Yeah, that's true. It doesn't surprise me because it's still a really hard business. The thing about food is its perishable, right? It's perishable, and if it's not properly stored and transferred, it's dangerous. There's a reason why food is highly regulated, and that's because it can become dangerous so. If you're talking about secondhand food, it's even another step removed and another level of complication of making sure that that food is the right quality, the right temperature, the right standards, all of these things.

There are a lot of folks that are trying to address the food waste issue and overproduction of food, especially like with catering and things like that. The secondhand food market does capture some of that. I know a lot of local municipalities will be a little bit more forgiving, but also allow tax breaks to folks that donate that type of food to kind of like food banks and things like that. There are those types of relationships that happened with the secondhand food market. Yeah, I'm not so surprised by that just because it's a hard problem to solve.

[00:45:30] JM: How does the cloud kitchen market look in five years?

[00:45:36] AC: It's going to be difficult to see. I do think that the centralized production of food is going to continue to be a trend. Investing these facilities is not cheap. The commercial equipment in them and all the technology that's going on is not going to be cheap. The pricing is going to have to really kind of be correct for the consumer in order for it to really kind of take off.

What I kind of see happening is our kitchen clients, our shared kitchens, they tend to have a more diversified pool of users. They might have some virtual restaurant concepts or some food trucks and things like that operating out of their facility. But in order for them to increase their percent utilization, they have to diversify their users. So they might have bakers in the morning and then they may have like a lunchtime caterer company that comes in. They might have a food delivery company in the afternoon, and in the evening they might have a virtual restaurant that's selling pizza or hot wings, but they're really maximizing their kitchen because they have a variety of users in there. I kind of see a more diversification of people accessing these facilities

versus just the delivery brands. I also see a lot of potential for not just the food delivery, but the actual like packaging of that food.

One of the things I don't like about delivery is the waste, like it comes – Everything's individually packaged. It's probably a lot of Styrofoam, a lot of cardboard, plastic bag, utensils, all the things. For a society that I think is kind of mentally moving towards less waste, I think there's going to be a lot of barrier resistance around that. How the industry solves for those things I think could be really interesting, is an interesting trend to watch.

Yeah. Then what happens out in California with the Labor Laws and on-demand labors, I mean, a lot of this industry is predicated, built on the backs of on-demand workers. How we view labor in the next five years and what that looks like will really be a huge factor into the success of these kitchens, I believe.

[00:47:36] JM: All right, Ashley. Any other predictions about the future of food to close this off?

[00:47:40] AC: Wish! I had the crystal ball. It is an exciting time. It's cool to see innovation. It's cool to see tech kind of trying to take on food. But in the end, I think people will still want to come to the table together and enjoy a meal and that we shouldn't put too many of our eggs in one basket for a lack of a better analogy, a food analogy, is a good one. But I think sitting down to dine and break bread will never be anything that goes away.

[00:48:08] JM: Ashley, thanks for coming on the show. Great talking to you.

[00:48:10] AC: Yeah, I appreciate it. Thanks.

[END OF INTERVIEW]

[00:48:21] JM: When I'm building a new product, G2i is the company that I call on to help me find a developer who can build the first version of my product. G2i is a hiring platform run by engineers that matches you with React, React Native, GraphQL and mobile engineers who you can trust. Whether you are a new company building your first product, like me, or an established

company that wants additional engineering help, G2i has the talent that you need to accomplish your goals.

Go to softwareengineeringdaily.com/g2i to learn more about what G2i has to offer. We've also done several shows with the people who run G2i, Gabe Greenberg, and the rest of his team. These are engineers who know about the React ecosystem, about the mobile ecosystem, about GraphQL, React Native. They know their stuff and they run a great organization.

In my personal experience, G2i has linked me up with experienced engineers that can fit my budget, and the G2i staff are friendly and easy to work with. They know how product development works. They can help you find the perfect engineer for your stack, and you can go to softwareengineeringdaily.com/g2i to learn more about G2i.

Thank you to G2i for being a great supporter of Software Engineering Daily both as listeners and also as people who have contributed code that have helped me out in my projects. So if you want to get some additional help for your engineering projects, go to softwareengineeringdaily.com/g2i.

[END]