

**EPISODE 884**

[INTRODUCTION]

**[00:00:00] JM:** Coding boot camps allow anyone to become a programmer at a faster pace than the traditional computer science education system. In the last five years, coding boot camps have grown rapidly in popularity with thousands of people gaining the necessary skills to work as a software engineer.

Career Karma is a platform that allows individuals to find the best coding boot camp. There are many coding boot camps and they are not all the same. Much like different schools have different cultures and focus on different disciplines, coding boot camps vary widely in the teaching styles and acceptance path.

Ruben Harris and Artur Meyster are cofounders of Career Karma, and they join the show to discuss the changing nature of software engineering education and the frictions that new programmers encounter as they navigate the world of coding boot camps. They also described their journey to entrepreneurship and their own personal experience with coding boot camps.

FindCollabs is the company I'm working on. It's a place to find collaborators and build projects. We recently launched GitHub integrations, so it's easier than ever to find collaborators for your open source projects. If you're looking for someone to start a company with or a project, FindCollabs has topic rooms that allow you to find other people who are interested in a particular technology. So you can find people who are curious about React, or cryptocurrencies, or Kubernetes, whatever you want to build with.

Also, if you're looking to start a podcast, Podsheets is an open source podcast hosting platform that we recently launched. We're building Podsheets with the learnings from Software Engineering Daily, and our goal is to be the best place to host and monetize your podcast. If you've been thinking about starting a podcast, check out [podsheets.com](https://podsheets.com).

[SPONSOR MESSAGE]

**[00:02:03] JM:** You probably do not enjoy searching for a job. Engineers don't like sacrificing their time to do phone screens, and we don't like doing whiteboard problems and working on tedious take home projects. Everyone knows the software hiring process is not perfect. But what's the alternative? Triplebyte is the alternative.

Triplebyte is a platform for finding a great software job faster. Triplebyte works with 400+ tech companies, including Dropbox, Adobe, Coursera and Cruise Automation. Triplebyte improves the hiring process by saving you time and fast-tracking you to final interviews. At [triplebyte.com/sedaily](https://triplebyte.com/sedaily), you can start your process by taking a quiz, and after the quiz you get interviewed by Triplebyte if you pass that quiz. If you pass that interview, you make it straight to multiple onsite interviews. If you take a job, you get an additional \$1,000 signing bonus from Triplebyte because you use the link [triplebyte.com/sedaily](https://triplebyte.com/sedaily).

That \$1,000 is nice, but you might be making much more since those multiple onsite interviews would put you in a great position to potentially get multiple offers, and then you could figure out what your salary actually should be. Triplebyte does not look at candidate's backgrounds, like resumes and where they've worked and where they went to school. Triplebyte only cares about whether someone can code. So I'm a huge fan of that aspect of their model. This means that they work with lots of people from nontraditional and unusual backgrounds.

To get started, just go to [triplebyte.com/sedaily](https://triplebyte.com/sedaily) and take a quiz to get started. There's very little risk and you might find yourself in a great position getting multiple onsite interviews from just one quiz and a Triplebyte interview. Go to [triplebyte.com/sedaily](https://triplebyte.com/sedaily) to try it out.

Thank you to Triplebyte.

[INTERVIEW]

**[00:04:23] JM:** Ruben and Artur, welcome to Software Engineering Daily once again.

**[00:04:25] RH:** Thank you. Thank you. It's been a long time.

**[00:04:27] AM:** Thanks for having us.

**[00:04:28] JM:** We're sitting in front of the fireplace on a warm June afternoon in the middle of San Francisco. The fireplace is roaring. You guys are the founders of Career Karma. We're going to talk about Career Karma eventually. In order to talk about Career Karma, we need to talk about boot camps.

**[00:04:48] RH:** Yeah.

**[00:04:49] JM:** Give me the strongest cases for and against coding boot camps.

**[00:04:56] RH:** I think Artur will be a good – Since Artur went to like Hack Reactor and his twin brother who's not here, Timur, did App Academy at the beginning of the boot camp industry. Why don't you talk a little bit –

**[00:05:03] JM:** Why don't you give the case against boot camps first?

**[00:05:06] AM:** Yeah, well –

**[00:05:07] RH:** Explain what a boot camp is first.

**[00:05:08] AM:** Yeah, maybe I should explain what a boot camp is for people that are now –

**[00:05:11] JM:** Sure. Why not?

**[00:05:12] AM:** So, when I was getting into the boot camp industry like back in 2014 while I was just learning to code, boot camps was basically like a way for me to change jobs. In three months, I went from doing some code academy, like HTML and CSS to going to coding interviews, like going to Onsites and then eventually getting a job in tech, getting paid over six figures.

That's usually not the outcome for everyone, but for me because I was extremely determined, it worked out pretty well for me. Now, like four, five years later, I have my own company. We just finished Y Combinator, which has been a crazy experience that we could talk about.

But I think the case for boot camps is that pretty much you get to reinvent yourself mid-life, and I think that's a big thing that people miss when they talk about comparison college versus boot camps. A lot of them assume that this is like a battle for 18-year-old who are deciding between getting a degree or not.

I see boot camps kind of like as a second chance for a lot of people who feel stuck in their careers and to realize that there are so many opportunities that I'm being kept away from. At least for myself, this was just another chance at getting a skillset that I can apply and build my own company.

I think the case against boot camps is that it's pretty – I think the concept is easy to understand. Three months, you get a new skillset. But there is so many formats. There's so much information about that you need to learn. There are so many programs that make crazy claims. You kind of assume that once school that has been around for five years is going to produce the same result that another school that maybe is only been around for two or three years.

Essentially, the outcomes, there's so much variety in outcomes and it's really up to the individual, less so about the school, that it's very hard at least at this point, in 2019, to determine what is the best school for me. Because there are just so many factors that go into it. A lot of folks rush into it and picking something that – Clicking an ad they see on Facebook and then they spend six months getting a subpar degree.

Then when they hit the job search, all of a sudden they realize, "Holy crap! I'm not where I need to be." Then a lot of them kind of get this reality, a wakeup call, and then they start blaming the boot camps for failing them. When in reality, like they should have done a little bit more research when they were considering which school to attend.

**[00:07:25] RH:** Yeah. For the people that don't know what a coding boot camp is, it essentially teaches people how to become software engineers in about 3 to 12 months, depending on which pace that you choose, and vocation school has been around since the industrial revolution, and automation is something that has persisted overtime.

So, we don't see education going away, whether it's vocational or college or online courses. We see it adapting to the needs of the workforce. What's interesting about boot camps is that they measure themselves on you getting a job, which is very different than traditional schools or even MOOCs. MOOCs and traditional school measure themselves off of you completing it and getting a certificate that is supposed to be able to get a job. But we've seen that that is not always the case.

I think that when I think about against the case about boot camps is because people are seeing that this thing is very effective and they're selling people an opportunity to reinvent themselves. Some schools claim that they can get you a job and they will charge you upfront and charge you a loan. If you don't get a job, then you get a bad experience and you start talking down about these vocational schools.

That's why understanding the data, understanding the outcomes is very important. But boot camps on the flipside have also become the first educational institution to take income share agreements at scale, which means that anybody can pursue a degree, a skillset, without having to go into debt. If you do get that job, that's the only time that you would have to pay. We could talk a little bit more about it. But, essentially, the incentives need to be aligned.

**[00:09:03] JM:** Before we get into a discussion of those different mechanisms for paying for your boot camp, let's just talk about the outcome. Let's assume I can pay for my boot camp and I can choose between the different boot camps that I go to. Even if I manage to dodge the scammers who have low quality boot camps, I may still go to a top quality boot camp and not find a job afterwards. I may still have a bad outcome. There is still a variable set of outcomes that people have after a boot camp. What's the cause of all that variance?

**[00:09:47] RH:** Yeah. I think that's a great question, and it's a little bit about what Artur brought up, and it's even so much like any educational institution. I think a lot of people over-emphasize. They think that the school is the silver bullet that's going to get you the job, but the school is actually teaching you a skillset and giving you the concepts that you need in order to get a job. Even though that they have coaching and things like that, the skillset to get a job is very different than the skillset to learn how to code.

Triplebyte has some pretty good data about this, where like I think 50% of engineering interviews fail for not technical reasons. So a lot of people don't know how to tell their story. A lot of people don't understand the concepts that are necessary in order to reach out to different people, and networking, go to meet-ups and things like that. But I think in general, a lot of schools aren't good at the job search. They're really good at teaching skills that are needed in the workforce, but there're a lot of other things that are necessary to understand outside of soft skills, like maybe some work on their project on the open source community, or what you're working on with FindCollabs, or maybe it's doing a little bit more on LeetCode or Codewars to get that supplemental information. But a lot of people just don't have that experience and that's something that exist with college itself.

Like the job search in general is not really good and you can see that with career counseling in general, and especially if you come from a non-traditional background without a degree, the biggest trouble that you're going to face even if you have the skills is actually getting the shot to prove that you have the skill. So, understanding how to get the shot is what most people don't know how to do, that we've been able to figure out through our own experience.

**[00:11:26] AM:** Yeah, I think the other big factor that at least when I was doing the job search after the boot camp is just the imposter syndrome, like the self-doubt you feel. Every time you have an interview, you feel like you're tricking the interviewer to believe that you have the skills. It's obviously like psychology plays an enormous thing in a lot of the things we do, but especially when three months ago or six months ago, you're doing – Maybe you're a consultant or a bus driver and now you're sitting in front of an engineer at a tech company who's asking you binary tree questions and you're like, "What am I doing here?"

I think that managing your psychology is extremely difficult in regular circumstances, but especially in technical interviews, you feel underprepared, and boot camps do a fair job teaching you the skills. But it's very hard to teach someone how to be confident or how to overcome those self-doubts. That's actually like one of the top reasons why we see people give up, because it's not that they went to like 20 or 30 interviews and they failed every onsite. Mostly the case is they will go to one or two interviews and then they start telling themselves, "Oh, I'm not ready yet. So I'm going to take three more months to go back and redo my JavaScript tutorials."

Then three months later, they try to interview again and they get rejected again and then they tell themselves, "I'm not good enough." So most of the people that don't end up getting jobs just end up giving up and never truly showing what they could do.

**[00:12:58] RH:** Talking a little bit more about psychology, let's use another assumption. Let's assume that this person that graduated a boot camp is actually really competent. Is actually really skilled and they know how to pass all the technical.

What a lot of people miss is that a company only hired a certain amount of people, and if you have the skillset to be on the team, that's just one part of the requirement. They want to like you. They want to be able to work well with you. That chemistry is important. It's like if you're in the NBA, everybody could play basketball. Everybody can make a layup. Everybody could shoot points. But like why would somebody want you on their team? It's the way that you all work together. It's the chemistry. It's like do they like you? Do I want to work long out with this person?

I met Artur a longtime ago in banking. We worked for \$100 a week, and now we've been around for each other for 7 years. I guess we like each other. That's a big factor. I think a lot of people miss that.

**[00:13:56] JM:** You guys have been on a business journey since we last spoke. The last time we talked was about your podcast, Breaking Into Startups, which is still going.

**[00:14:08] RH:** Yeah.

**[00:14:09] AM:** Over a hundred episodes.

**[00:14:11] JM:** I'm glad to see that all three of you at this point, I believe, have left the jobs that you were working at, the companies that you were working at. Did you guys make the leap to leave the companies that you were working at? Was that before or after you had your current business idea all figured out?

**[00:14:31] RH:** It was a sequence of different event. When we met, we knew we wanted to start something, but we didn't know what we wanted to start. We had ideas, but we knew we needed to get skills. What we realized is that most companies fail and we need to get skills, and software engineering is one of them, technical skills are one thing, learning how to sell and distribute things is another thing.

But we also realized that after we discovered what coding boot camps were, most people don't even know coding boot camps exists. The majority of people in coding boot camps actually have bachelor's degrees. 70% of them have bachelor's degrees. Media is important to make sure that people are aware of these things. Podcasts are helpful, but even podcasts are still only listened to by more fluent people that have high-degrees. Radio is really powerful. If radio is going to start being taken over by podcast and Bluetooth and electric cars, like what Tesla is doing with automation and all these whole driveless car movement with Cruise, and Uber, and Lyft, whatever, Waymo. Then podcast is probably going to be a good medium to reach a lot of people. Video is going to be a good medium to reach a lot of people less. We have like video being recorded right now.

So, we knew that in order for us to – We actually noticed that in order for us to learn more about how to get in tech, we needed to talk to other people that can teach us how to get to where we wanted to go. Even in Atlanta, we would always be meeting up with people asking for advice. After we got our first job in tech, I was at our school. Artur was at Funding Circle. Timur was at Bleeper and AutoTrader before that.

We noticed that tech media only covers CEOs and VCs and people with high-degree, but the people actually building the company never got covered. So we're like, "Oh! Well, let's feature their stories, because that's going to be what resonates with the average person."

So after we started talking to them and sharing their stories, then we started sharing the stories of the schools that they went to that weren't college to understand how they were teaching, and then one thing led to another to the point where we started understanding the problems of the schools and their financial issues and how we can help them and then iterate it on a business model.



Then we started getting some payments while we're working in jobs. Then eventually we're like, "Oh! This is a certain segment, but we could help all these other people. Why don't we productize this experience and turn it into this big juggernaut, because everybody is talking about the future of work," and that is what turned into Career Karma.

**[00:16:59] AM:** Yeah. I think for us, our MVP – For a lot of companies, MVP is actual product people build. For us, the MVP was actually our podcast, because we validated that there was tons of demand, like single parents, people that have criminal records, athletes, veterans. There are so many folks out there who want to get better jobs. When they go to look online, they see all these like, "You could become a software engineer. You could make six figures as a product manager," but there's no clear path of how to get there. A lot of people just disqualify themselves from these jobs, because a lot of them just assume that you need to have a crazy pedigree to get that.

So, the podcast was the first step to kind of like test out the waters to see if we were helping people understand the path into tech, they'd be receptive to it. Would they get activated? Would they actually reach out to us to get advice? We found that, in fact, we were getting millions of people listening to our podcast, emailing us, reaching out to us, asking, "What do I do next?"

So, one step after another, we just discovered that, "Hey, there's actually a huge need," and by that point –

**[00:18:07] RH:** People started showing up.

**[00:18:08] AM:** Yeah, people started showing up at our house. At that point, Timur and I were both technical. Timur went to App Academy. I did Hack Reactor. We've had really good software engineering jobs and experience and we're like, "Let's just build an app." Because of the boot camp experience prior, we're pretty well-equipped to build our MVP without having to raise capital or – I don't know, just get distracted by a lot of the things. We're just, "Hey, let's build a simple prototype to see if people will sign up."

The interesting thing is we quit our jobs, apply to Y Combinator. We got the interview – This was last April, and we won to speak with the partners and we were like, "It's going to be great. We're

going to explain our idea. They're going to love us," and we got rejected the first time. At that time, we just left our jobs. We told our coworkers we're going to do this Y Combinator thing. It was tough, because we had to deal with – All of a sudden, we're kind of our own.

What we were hoping for didn't happen, and we were faced with an option like, "Do we go back to looking for jobs again or do we just take a bet and pursue this?" We ended up sticking with it. We continued building our mobile apps, and six months later we applied to Y Combinator again and got in.

**[00:19:25] RH:** Yeah, and I think when you think about niches, you really want to think about what are you the best in the world to solve? Product market fit is one thing, but founder market fit is another. What is something that you believe that very few people agree with you? What truth do you believe that very few people agree with you on, and then match it up with what's currently happening in the world.

So we saw students loans are in the trillions. Clay Christiansen predicting half of the U.S. universities are going away in the next 5 to 10 years. But then boot camps keep launching on colleges with Trilogy and we're like, "Wow! Everybody thinks this boot camp is hot. We know a lot about this, and there's really nobody in the world that knows more about the space than us. We've been in this game for a very long time and we are the product ourselves, because we've been through it. Let's go for it." That's exactly what we did.

[SPONSOR MESSAGE]

**[00:20:26] JM:** Cox Automotive is the technology company behind Kelly Blue Book, autotrader.com and many other car sales and information platforms. Cox Automotive transforms the way that the world buys, sells and owns cars. They have the data and the user base to understand the future of car purchasing and ownership.

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[INTERVIEW CONTINUED]

**[00:21:47] JM:** The product that you built, Career Karma, solves or seeks to solve many of the problems that potential boot camp attendees, prospective boot camp attendees and people who have made it further down the boot camp funnel, and I think beyond the boot camp as well. Describe the gaps that you've identified in that end-to-end funnel. From the I'm a person who should be going to be a boot camp, but I don't even know that a boot camp exists. All the way to career progression of somebody who has existed a boot camp.

What are the – Maybe there's too much in there to explore. So maybe focus on the things that you think are the most acute problems that you've built into your product.

**[00:21:47] RH:** Yeah. So, I think when someone Googles learn how to code into Google, they're faced with a ton of option, let's say thousands, if not millions of options about how to code. So, the first issue that someone faces is they're really excited about coding, but then they're faced with information overload which can cause two things. It could cause imposter syndrome, where you feel overwhelmed with everything. You're like, "Oh, man! Maybe this is not for me. I'm very confused." But then the other thing that you could be faced with is paralysis by analysis.

So very simply, Career Karma, the first thing that we help you do is we match you with the right coding boot camp that's best for you based off of your goals and current challenges, right? So, once you have decided that you want to get into this program or these programs, you need to know how to get in.

So, every school has a certain preparation period in order for you to get int. Essentially, it's the basics of coding. We think about learning how to code kind of like learning a language and

going to a booting boot camp like moving to that country. The prerequisites to get in is like learning the basics. So it's kind of like saying hi and bye, where's the restroom and how to order a food. So those basics are usually things called prep programs that the boot camps have.

So when people are going through the 21-day challenge and our 3-week process, they are going through that prep work, but while they're doing that, we also give them accountability buddies in the app as well. So every day, they are messaging people that are at their level and one step above them, because we realize the people that are best positioned to help them get accepted into the boot camp is someone that just got accepted versus someone that did it five years ago, because the one that just got accepted has the most relevant information.

Once that they are in, they are put into something that we call a squad that is essentially accountability buddy and they can decide who's inside of those squads. Usually it's 5 to 20 people, sometimes in the same boot camp, sometimes in other boot camps so they could share curriculums. The idea for the squad essentially just came from me, Artur and Timur and like the way we held each other accountable even though we were doing different things and have the same type of goal.

Those people really help with retention, and then when they get through the job search, they change their profile in the job search. We connect them to people that are already employed, because in order to get the shot, they can have people that can vouch for them, to skip the normal recruiting process and then get all the way in. So once we perfect that chain through software engineering, we'll expand to other skillsets, and that's essentially what we do right now.

**[00:25:21] AM:** Yeah. I think just to add to that, I think there are two things, and especially kind of having gone through the process of learning to code, a lot of the resources out there are focused on the first maybe month of the journey. So, there are tons of websites where you could learn basic HTML, CSS, JavaScript. Most of the curriculum online is geared towards the very, very basics.

But then once you get to like an intermediate level, you all of a sudden feel lost, because you don't really have that many options available. One of the options is, "All right. Now, you just have to come up with a project in your head and go build it on your own. When you get stuck,

there's no tutorial or no instructors to help you." That automatically like probably eliminates half of the people that gets to an intermediate level.

The other people probably join. Maybe they're avid bloggers or things like that. They join some sort of community, but because it's unstructured, there's just too much noise. So someone might be saying, "Oh, you should learn Python and you should learn these frameworks." Then someone else gives you completely opposite advice. What you end up doing is you're just kind of like a boat going from like one island to another knowing what that roadmap is going to look like.

We see a lot of folks in tutorial purgatories, where they've been doing one JavaScript tutorial after another. They're like, "Oh! Udemy is having another sale. You've got this \$100 course for \$2. So I'm just going to sign up and do this JavaScript fundamentals again." Then they finish it and they're like, "All right. Now, I'm going to try to build this on my own." Then as soon as they start – Want to build something themselves, they get stuck and they can't do anything because it's not the same as taking a Udemy course. So I think that's the biggest thing.

I think what's interesting about boot camps is that they solve the last mile problem. So, a lot of resources focus on the first mile and then people get lost. Boot camps are really good at like people that are already have some technical experience. Maybe they've kind of persevered and now they're just either need help with job search or maybe they just need some more help with learning some frameworks. Boot camps are really good at helping those people get ready for the job search.

But there's a whole area in between of people just feeling lost, and that's kind of like where we see Career Karma helping them is putting them in a kind of ability groups. Helping them have a roadmap, like what is your journey going to look like over the next months? It's not a Career Karma journey. You're going to speak to other people who just got jobs in tech and they're going to give you their roadmaps.

So, it's one of the things. I think the other component of that is also like information asymmetry. When people try to search for resources, what they don't realize is that it's very likely that the resource they're using, because that company had the biggest marketing budget. A lot of people

don't really understand how marketing in the boot camp industry works. But we all know, like if you go to someone's website, then you start getting retargeted by Facebook ads and things like that.

So, a lot of folks end up doing courses not based on the merits of the course, not based on the outcomes, but based on how big – What was the marketing budget for that school? We all know there's not a lot of correlation between who has the biggest marketing budget versus investing those resources in career help and curriculum. So, Career Karma also solves that issue that just someone who's starting out to code, it's too easy to get overwhelmed, and we give them that transparency and they could speak to any alumni in our network that will help them figure out the next step.

**[00:28:51] RH:** Yeah, and the only thing that I'll add to that is that some other nuances that people have is in the beginning of the boot camp industry, there's only fulltime, and that was usually about three months for the boot camp. About three months for the job search. Now, you have part-time, you have self-pace boot camps. But I think the biggest innovation is online and self-pace and part-time. The majority of people that are doing these boot camps are doing it online and part-time. Why? Because they are middle-class and lower – They're everyday people. They're parents, they're veterans, they have jobs. They need to put food on the table.

So, in addition to a lot of the accountability, things that we brought up, life happens. So, inside of the squad, if I'm in a group of moms, they can tell me how to manage my time way better than Artur, Timur and I can, because they're moms. They've been through it. If I am someone that has dealt with the nuances of how to communicate my job experience as a veteran, being with other veterans that know how to do that can do it way better than we do. So, people can't be where they can't see, but they also learn from each other better when they're in groups. So, that's what our app is currently doing.

**[00:30:04] AM:** Yeah, and I think one thing to add to what Ruben said is when people think about software engineers, like even the tech market, they imagine Silicon Valley or New York or maybe Chicago. But in reality, there are tech companies and there are companies needing engineers all over the country. Especially markets which are not known for having software

engineers – If let's say some food distributors now trying to revamp their logistics system, where are they going to find engineers to help them?

They're going to have to probably like contract and pay a huge price versus if there's a boot camp in their city, they could potentially hire out of the boot camp. Maybe get some senior engineers and they could actually built it in-house the same that Amazon builds their own warehouses. So, that's just a small example, but most of Career Karma members are not from San Francisco or New York. They're from cities that a lot of the time I've never even heard about.

**[00:30:59] RH:** Yeah. I mean, we launched the app in January. We have over 12,000 people in the app, and the app reflects the world. You just go to the community tab and scroll through the people and you will see it does not look like the tech industry. But we don't market ourselves that way. That's just what's common. That's the natural demand that exists in the market.

**[00:31:15] JM:** There's a sophistication to the app that you guys have built both in the engineering side of it and in the product side of it. I think both of those areas are things that I would like to explore, but I don't know if we have time. Just to make sure I understand this correctly. Your go-to-market for – I think this is instructive for anybody who hasn't built a company yet, but wants to build a company. Your go-to-market was start with a media brand, Breaking Into Startups, basically you yourselves were breaking into startups and assessing the process by which people broke into startups, which included the boot camp process.

So you start a media company around the thing you wanted to understand, because you didn't know what other companies start. From there, you had some ideas around a product. Then you unabashedly used a low-code product to build your first version, right? You used Bubble, right? That's a low-code product. This is a sophisticated approach to building an MVP. I think there're not as many people who use that. I mean, I think the low-code thing is catching on. I'm surprised it hasn't caught on more.

But then you validated your MVP and then you built a version in React Native. You're using GraphQL, and the app is really nice. It's kind of a social network meets Netflix, meets podcast

player, meets ecommerce referral program, meets two-sided marketplace connecting software engineer prospective boot camp attendees to boot camps.

**[00:32:58] AM:** Yeah.

**[00:32:59] RH:** That's right.

**[00:33:00] AM:** Yeah. So I think you're kind of like pointing to the fact that what we're trying to tackle is actually a multidimensional problem. But what drives our product vision is our customer. When we think about building new features, we think about how can we make our user more informed about making a decision about their careers, and that's where it all stems from.

Then we try to imagine an experience, like use the beginner's mindset. What would an experience be for a parent who doesn't know what coding is. What should that interaction be like when they enter our app and how do we explain what coding is to them in a way where it's something they're going to want to do and stick around.

It took a lot of experimentation. We probably iterated on this just on the onboarding experience or like your first day in the app so many times that –

**[00:33:51] JM:** What was the worst idea that you guys had that you executed on like partially?

**[00:33:56] RH:** I think we've tried to introduce meet-ups early on before we had tested out everything and really built the interaction of people helping out and that didn't really work pretty well. But now –

**[00:34:05] JM:** That's the worst idea you guys have had? Come on!

**[00:34:07] AM:** I mean, I think even with the app, I think it took us a few months to realize that people that were downloading our app didn't know what coding was. Even though they were clicking on like an ad or hearing about tech, and maybe they saw our webinar online, because it's pretty popular on Instagram, but people would download the app. Then we start speaking



with them, because we actually – The first feature we build into our app was Messenger, and that was strategic, because we realized that there's no way we're going to know what's going through their minds, and YC always talks about, "Speak to our users. Speak to users."

So every time someone joins the app, they always get paired up with me and then they also join groups with Ruben and Timur. So we're always at their fingertips. As a result, we kind of get firsthand experience what's going on. But we very quickly found out that people didn't know what coding was.

**[00:34:56] RH:** Yeah, and I think that's a really important point, because going back to the ads that people see online and marketing budgets. Thousands of boot camps are competing for the same hundreds of thousands of people applying every single month. If your ad is just like, "Learn how to code," but nobody knows what code is, or even what a software engineer is, they're going to be confused.

In the beginning, we had this messenger app and we would talk to them and we would explain what we normally do in three weeks through the 21-day challenge in one hour and everybody was confused after. So that's when we realized that we had to break that up into days in little segments they really understand the nuances and even the changes that are happening high-level not just with boot camps and education, but also the entire world. I think to that point, that's probably the biggest thing that we did, is like break it down.

**[00:35:46] JM:** That's what Germany did with the 21-day challenge.

**[00:35:48] RH:** 21-day challenge. Yeah.

**[00:35:49] AM:** We broke it down into 21 steps that you need to get acceptance to top schools. The funny thing is now, by day 10, people get accepted to like three to five schools. But in the beginning, it used to take us 60 days or 90 days to get someone from signing up to getting accepted, because we just didn't know what we're doing. But it goes back to like what Career Karma's long-term vision is. It's helping people tackle their most important career decisions, and we're starting with coding boot camps.

A lot of people, when we explain to them like how passionate we are about this problem, a lot of people kind of dismiss us saying, “Well, coding boot camps, how big is the market, or why you guys focus on coding?” A lot of people kind of like used to laugh at us and still kind of dismiss us because they’re like, “This can’t be a big business.” But what they don’t realize is that we’re actually going to solve the most important career decisions starting with skill acquisition. Helping them acquire their first job.

Then from then on, we’re going to help them make the most educated decisions about the rest of the careers. We don’t believe that LinkedIn is doing this or any of the job sites, because those sites are targeted for people that already have the skills.

**[00:36:57] RH:** Yeah, and to touch on that. If you think about the U.S. alone, there’s like over a trillion dollars spent on post-secondary training in the U.S. Staffing is a huge business. Over \$500 million. Most of these staffing efforts are focused on the visible workforce, like people that went to college. But most of the working world is actually in the invisible workforce. People that didn’t go to college, have some college or no degree. Might be working retail, might be working in truck driving and things like that.

So, we’ve catered our product to these individuals to help them decide which boot camp is best for them. But our north star is helping them make with a decision about their most important career decision. Once we get this right for coding boot camps, we will expand to all the other skillsets that are adapting this type of model to prepare people for the future of work. Even if you hire the current people that are prepared for these high-skill jobs, it’s not enough to fill the open jobs.

So companies are starting to increasingly build talent in addition to buying talent. So we’re well-positioned not just to cater the invisible workforce, but also the visible workforce and have the world’s largest community of people with in-demand skills.

**[00:38:05] JM:** Why is there pushback against the learn to code movement?

**[00:38:11] RH:** I think the reason why there’s pushback is because –

**[00:38:14] AM:** Do you mean like on the – When BuzzFeed laid off a bunch of people, there was like a big meme going –

**[00:38:21] JM:** That's what I'm referring to. I don't know if that's actually a real pushback, or do people actually get offended when you say like learn to code?

**[00:38:27] RH:** Sometimes. I think coding isn't for everybody, right? I'm not a software engineer, right?

**[00:38:33] JM:** Me neither.

**[00:38:34] RH:** So, we think that like non-technical roles are going to be bigger in the future work just like it is today, right?

**[00:38:39] JM:** Agree.

**[00:38:40] RH:** And there's roles that exist in technology that require skills that aren't being tied in college, and you got to figure out where to get those. So, to Artur's point, the first decision that we're helping people make is which coding boot camp is the best for them, but then there's going to be a boot camp for sales, which there is. There's one in Y Combinator that wasn't ours. There's going to be there for marketing, for data science, for product management, for all these different things. We actually see people embracing life-long learning, where rather than going to one school and one job at doing that forever, you're going to see people doing two hours of duty where they do a job for maybe two to four years. They go to multiple schools, multiple companies in a lifetime. If you take a global perspective and the cost of education is going down, and I know we're going to talk about cost of education later, then the value is the network. So you brought up a network. We've built a social network of people helping people and making decisions together and hold each other accountable.

**[00:39:32] JM:** Actually, people are helping each other?

**[00:39:34] RH:** Oh, yeah.

**[00:39:34] AM:** 100%.

**[00:39:35] JM:** Great.

**[00:39:35] RH:** Every day.

**[00:39:36] AM:** If you go on Twitter, and some of your listeners may have already seen this, and you look up 21-day CK challenge, you will literally see every five minutes someone tweeting about what they learned that day, and these are not folks that are like traditionally are perceived as techy or like super, like on their nerdier side. These are folks who are like maybe a month ago they were tweeting about makeup or some other like typical Twitter thing. Now their entire timeline is filled with Career Karma tweets about learning HTML, CSS, JavaScript.

We've actually looked very hard for other tech companies that have the same level of – I don't know, you call it stickiness or like the same level of engagement. I mean, sure, there are companies that might have like one review or might get someone to make a tweet about them, but will literally can't find a single company that has someone tweeting 21 days in a row, and they're also tweeting, doing like video documentary over the life and telling their friends that, "Hey, Career Karma changed my life." We're not like touting our own horn, we're literally –

**[00:40:44] JM:** We talked about that in the last episode. This is just how you feel when you find out that coding exists in the world.

**[00:40:53] RH:** Yeah. I mean, but also like Twitter was valuable in our life. So, in the beginning before we even had Bubble or a community or a podcast, the product was us, right? Twitter was more valuable to us than LinkedIn, because I was sliding people's DMs all the time, right? I realize the power of tweeting. You see some boot camp founders, they're tweeting all the time to get their voice out there, right?

So, if you think about that, less than 10% of people on Twitter tweet. So, if people on Twitter – If we're growing Twitter accounts and Twitter growth hasn't gone super crazy overtime and we're getting people actively tweeting about coding and their lifestyle. Eventually, Career Karma will shape public opinion on Twitter for tech.

**[00:41:37] JM:** Okay. So do people that are helping each other, so are they getting randomly paired or how are they getting arranged with each other? Swipe right? Swipe left? Chatroulette style?

**[00:41:48] AM:** So we made it very like natural, because we didn't want to prescribe people to like, "Our algorithm says that you will be the best match with this person." What we didn't said was just put them in a draft group of about a hundred people.

**[00:42:03] JM:** So, hundred random people.

**[00:42:04] RH:** At the beginning.

**[00:42:06] AM:** So, basically a hundred most recent joiners. So every hundred people, we'll create a new draft group. Then we have Zoom calls every evening where people jump on. Zoom actually has a very cool feature where you could have breakout rooms. Then people will just hop breakout room to breakout room, introducing themselves, hearing other people's stories.

Someone might say, "Hey, I'm actually a DJ, but I want to learn how to code, because I have an idea for a music app." Then someone else will be like, "Oh, I love music too," and then they find that commonality and they're like, "Let's create a squad for all the musicians out there who want to learn how to code." That's how it happens.

We're trying to productize that aspect of like forming, but I think for us, it's going to be more about enabling discovery. Allowing people to discover interest groups, discover squads that they might resonate with versus kind of like prescribing, or the typical tech thing, which is we're going to use machine learning to create an algorithm that assess you and perfectly tells you your best match.

**[00:43:02] JM:** You could still do that later.

**[00:43:03] AM:** Potentially, but –

**[00:43:03] RH:** Yeah. So, this is how we think about it. You could think about the draft group as kind of like pick a basketball, or like the first day of school, right?

**[00:43:10] JM:** Or chatroulette.

**[00:43:11] RH:** Or chatroulette.

**[00:43:13] JM:** Don't use that one. Don't use chatroulette.

**[00:43:16] RH:** You're like around all these people that you just met that are interested in coding. Overtime, as you like start shooting around and start doing different things, you're going to start finding people that you click with a little bit more and you can have your little crew. So, they start coming together.

We have thought about quizzes. We could talk about the quiz. Talk about the quiz. No?

**[00:43:34] AM:** Yeah. I mean, I think there's a lot of ways to productize it, but I think there's something beautiful about –

**[00:43:38] JM:** Quiz? Oh, so like OkCupid?

**[00:43:40] RH:** Right now we group people into like – People will group themselves in different ways. We're not prescribing it, but they'll group themselves by the school that they're doing, or the location that they're in, or their passion, like what you say, with music. But at some point you might see people grouping themselves based off of whether they have some – They want to do things that are remote versus part-time or – I don't go into the nuances of the quiz that we're thinking about. I do think that data will help at some point, but it's not going to be this ultimate solution and the magic bullet.

**[00:44:08] AM:** Yeah, and I think that's something we learned in actually like building our company, building our app, is sometimes something are just like simple and you don't want to overcomplicate things at least in the beginning. YC tells us like do things that don't scale. The reason they say this is that until – as founders, we actually need to do every single thing first.

Observe it. Get user feedback, and there's just so much to learn that we don't want to impose our worldview or what Ruben and I think should be the algorithm for matching people.

So we're just like, "Hey, let's put 20 people in a Zoom call. Let's have them go round the room and kind of mirror what happens in real-life, at meet-ups or at events, or dinners.

**[00:44:49] RH:** Yeah.

**[00:44:50] JM:** What's your interaction with the boot camps?

**[00:44:53] RH:** Good question. So now that we have a lot of volume coming through the app and we have a lot of people that want to do coding boot camps, all these boot camps have a lot of capacity to hire or to train a lot of students and they're doing a really great job of training them. But now that we're sending them all into the app, we're needing to build software for them to be able to handle the flow.

So we're essentially creating software for the schools to be able to manage their applicant funnels where the individuals can apply to all the schools in one click. Then the schools can essentially apply to them versus the individuals applying to the schools, and we essentially handle all their prescreening and nurturing and placing before so that they don't have to worry about that. Artur can go into more detail about that.

**[00:45:39] AM:** Yeah. I mean, I think essentially it kind of goes back to our original point about what is our mission. What is our north star? It's helping giving our users leverage, and you give people leverage in a couple of different ways. But, usually, like solving their information asymmetry and giving the best information is one of them.

With Career Karma, it's pretty simple. They fill out an application, which is very simplified. It's not like a college application where you have 20 questions. They just indicate what they're interested in. Maybe a few questions about where they're located and things like that. Then we give them 6 to 10 offers from the boot camps themselves. So it's a very similar model to Triplebyte. I don't know if you folks have heard.

But it's a common app where boot camps apply to students, and the advantage we see there is that everything is upfront. So you know what the terms are. You know what the conditions are. What you need to do to get accepted, to get fully accepted, because a lot of these are conditional acceptances. So instead of wasting your time with a school, and then after you get accepted, you find out that there's a \$5,000 deposit that you didn't know about and then the last three months kind of like were spent for nothing. You got to see all of that upfront. Since there's a little bit of a competitive environment, we're trying to see schools offer incentives, like scholarships –

**[00:46:57] RH:** Housing.

**[00:46:58] AM:** And housing, and it really puts the ball – It gives the candidates a big advantage, because the best candidates that perform the best that are super committed, highly-motivated, they're going to get the best deals. So, we think that this is the system that we wish we had we were applying and the information is there.

The other really cool thing is when people get matched to these schools, you could see other people on the app who are currently no schools. So you could message them and say, "Hey, I see that you're in a prep program or I see that you're in this school. What is your experience like?"

We're not gating any information. We're making it available, because we want our users to succeed, because the only way Career Karma becomes like a big business is if our users successfully find jobs and successfully make the best decisions about their careers.

**[00:47:46] RH:** Yeah. So, you ask what the interaction is with the school. So during Y Combinator, our main focus that will continue to be the focus is like really building this really powerful and special experience, 11-star experience for career switchers. But now –

**[00:48:03] JM:** Sorry. Did you say 11-star experience?

**[00:48:05] RH:** Yes, 11-star experience. Exactly. I'm glad that you caught that.



**[00:48:10] AM:** Yeah. You want to tell him what it's about?

**[00:48:12] RH:** Actually, there's a Masters of Scale episode on Airbnb, Reid Hoffman's thing. So he talks about how in the beginning with Airbnb, which is also a YC company. They wanted to focus on how do we give our users an 11-star experience?

So we did the same thing. So, in the beginning, it was cool. It was helpful. We got good feedback. But as we kept getting more and more feedback, now, like we consistently get really high stars. So, we wanted to give them an 11-star experience.

Now that we've done that, we wanted to do the same thing on the boot camp side and really build this two-sided experience so that the boot camp see not just the value when someone gets enrolled, but all the things that are happening beforehand, all the value that they're getting, all the insight that they could be having to manage their funnels, to help with their tension, to help with outcomes, to save money, save time and really sing our praises, and we're all growing together.

Because at the end of the day, like this future work thing, this workforce development thing is the economic issue of our time. You cannot solve problems without people and talent. So, we feel very strongly and passionately about this. So my time is over the next three months or the next few months is going to be really focused on making sure that boot camps have that type of experience as well.

[SPONSOR MESSAGE]

**[00:49:32] JM:** When I was in college, I was always looking for people to start side projects with. I couldn't find anybody. So, I ended up working on projects by myself. Then when I started working in the software industry, I started to look for people who I could start a business with. Once again, I couldn't find anyone. So, I started a business myself, and that's the podcast you're listening to. But since then, I've found people to work with, on my hobbies, and in my business, and working with other people is much more rewarding than working alone. That's why I started FindCollabs.

FindCollabs is a place to find collaborators and build projects. On findcollabs.com, you can create new projects or join projects that are already going. There are topic chat rooms where you can find people who are working in areas that you're curious about, like cryptocurrencies, or React, or Kubernetes, or Vue.js, or whatever software topic you're curious about.

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Thanks for listening, and I hope you check out FindCollabs.

[INTERVIEW CONTINUED]

**[00:51:23] JM:** We are all – All three of us, pretty familiar with the burgeoning software media landscape or software media technology, media landscape. Give me your perspective on the software media landscape. As somebody as two people who – And also Timur, who cannot be with us today. You guys have built a podcast and you've kind of leveraged your different media channels into your business.

So, I think you built distribution before you built the product that you were building distribution for. So you deeply understand the importance of the distribution channel. Describe the software media landscape as you see it today.

**[00:52:13] RH:** Okay. I will give my perspective. I think before giving my perspective about the media landscape, I think when you think about big billion dollar tech companies, there is no billion-dollar tech business that has documented their story from the beginning to end. So, we have actually been documenting our story from the beginning and we'll continue documenting our story throughout and elevating the people that are users in Career Karma.

The reason why we do that is it also kind of holds ourselves accountable. When somebody tweets saying that, "I'm going to become a software engineer this year." You kind of like are

putting that energy out into the universe and it's kind of like pushing you in that direction. I think that if you look at media before software took over, it was controlled by a few players, right? The TV stations, the radio stations, whoever is in charge of the media companies.

What software has done is created citizen journalism, where what's actually happening on the ground can be verified versus what's being said on the television, which is good. But at the same time, on the flipside, because there are so many people that are tweeting on social media or talking on social media, you can get proven guilty when you're innocent and you get proven innocent when you're guilty, because it's hard to verify facts. If you see a lot of retweets or a lot of likes, that actually becomes justification of truth, and that's a problem.

So, it's good to have the voice of people on the ground, but at the same time you got to be – There's a silver line. So you got to watch out for both. What we've realized when it comes to people's whose intentions are good, wanting to solve problems, they allocate a lot of dollars, a lot of resources, a lot of focus, a lot of talks, a lot of events towards solving homelessness, or food, or health, or whatever.

But very rarely do they actually have the individual that they're trying to support in the room, which is crazy to me – I'll tell you my perspective. Because if you think about technologies, you're supposed to be talking to users, right?

So, for us, it's very important for the worker voice or whoever's problem that you want to solve to be in the room. I think media allows us to just talk about them, but give them a platform, because a lot of these individuals, even when they do become successful, they have to deal the barriers of entry to get a press journalist to cover them and things like that.

So what we did with Breaking Into Startups and Career Karma is we established career contributor relationships with major publications. So we don't just write stories about ourselves. The other people that want to write their stories, they can amplify their voice through our media network. You and I, we talked during the pre-chat about the power of networks, right?

You have a fantastic podcast. We started a podcast – Other people that have podcast in our niche, and yeah, we're different, but we're similar Kind of like the Avengers. Everybody has like – So if we come together, there's a lot of power in that, because if I know that your community is strong and it's representing people's voices and my community is strong on representing people's voices together, that's –

**[00:55:27] JM:** Can I be Ironman?

**[00:55:28] RH:** You could be Ironman. I'm cool with that. I'm cool with that. That's essentially how I think about media. How do you think about media, Artur?

**[00:55:36] AM:** I mean, I don't really have any strong macro-views, but I do act on Ruben's sentiment that nowadays a lot of people kind of – They're kind of falling to their hustle porn mentality, like they see people on Instagram working hard or people tweeting about how hard they work even though why are you tweeting if you're working hard?

**[00:55:54] JM:** I think it's an oxymoron. I think if you're on Instagram and working hard, I think that is an oxymoron.

**[00:56:00] AM:** Totally. But I think the same thing with Twitter too. If you're putting out these threads on advice to entrepreneurs or venture capitalists, all that stuff, why are you on Twitter? You should be helping founders or building your company. So I think that's kind of like – I think we look to take advice from people, because it sounds good. The sound bites resonate with us. But in terms of actual impact on our life, we don't question that. I think I wish more people did that.

But what I'm really bullish and optimistic on as kind of like what Ruben and Timur and I did. We started documenting our journey. I think documenting versus creating has been the biggest shift, and I would attribute most of our success to documenting our journey. Because a lot of people get obsessed with like, "I'm going to create this amazing five-minute video and I'm going to put it out there and I'm going to get thousands of views the next day." We all know that doesn't work.

What we did was just, “All right, we’re going to feature people that we find interesting. We’re going to document their stories during the same process. We’re going to be fully transparent about our thoughts, our actions.” We started recording our journey starting with a podcast. You can actually see Snapchats and even Instagram stories from maybe 2015 or ’16 just when we’re starting out. We documented the whole Y Combinator journey of actually getting rejected from Y Combinator in April and then getting accepted again in December.

So we’re being fully transparent with people, because, hey, you could be fascinated with Elon Musk. But to be realistic, Elon Musk is like just completely out there. We want to show folks that, “Hey, we were just regular people like you who worked really hard and we weren’t doing it because we wanted to like impress someone with our abilities. We’re just saying, “Hey, we’re not special. We’re not different than you are. But, look, there are all these opportunities for the taking. There’re million dollars bills in the sidewalks. We’ve been picking it up. You all should be doing the same thing.” That’s how we’ve been doing it.

**[00:57:59] RH:** And similar to that, if we think about the media landscape, a lot of people, they want to be superstars. They want to be famous. They want to make a lot of money. But when you’re starting a podcast, or a YouTube channel or whatever just to be famous, that’s not going to be what’s going to allow you to pick up the million-dollar on the sidewalk. You got to figure out like what’s unique about you?

We are all – Ironman has a superpower. All these people have different super powers. Storm has superpowers, Wolverine. Everybody has different superpowers. So like figure out what your niche is that you’re going to cover that you’re going to support, and also realize that once you pick a niche, you can learn a lot of things that you don’t know. So, through our podcast, when we don’t know things, we interview other people than know more about it than us.

Through interviewing them, we learn, we get an education, but our listeners also get an education. I think that’s super, super powerful and super, super valuable, because if you think about who actually has the power and who actually – A lot of people think it’s money. The people that have the power are the people who have attention. Having attention of certain audiences demand different types of dollar amounts, and dollar amounts are just like what people think. It’s a representation of value to whoever is giving you that money, right?

So, as you're thinking about the community and the niche that you're focused on, if you pick something that's unique to you that only 5 people are going to listen to, then maybe you're not going to have a big market there. But if you think about like all these people that are trying to find a job and don't know where to go outside of college that need a niche and don't have the money for it and they need to figure out these different things, that's probably a big market. So talk about it. There's literally like millions and millions of ideas like this. Don't worry if people think it's weird. Everything is insane until it becomes obvious.

**[00:59:51] JM:** Guys, thanks for coming on the show.

**[00:59:53] AM:** Yeah, thanks for having us, Jeff.

**[00:59:53] RH:** Thanks, man. Appreciate it.

[END OF INTERVIEW]

**[00:59:58] JM:** Podsheets is open source podcast hosting platform. We are building Podsheets with the learnings from Software Engineering Daily, and our goal is to be the best place to host and monetize your podcast.

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