The Tim Ferriss Show Transcripts
Episode 74: Samy Kamkar, Part 1
Show notes and links at tim.blog/podcast

Tim Ferriss: Samy.

Samy Kamkar: Tim.

Tim Ferriss: Well, welcome to the show.

Samy Kamkar: Thank you. Awesome.

Tim Ferriss: It is so great to see you again. It has been awhile, since our
                    adventures in TV land.

Samy Kamkar: It has. Yeah. Oh, no.

Tim Ferriss: And I've wanted to introduce you to my fans and this audience for
                    so long, already, and I think a great way to do that is to explain a
                    few things that are right in front of me, so you have a necklace on.

Samy Kamkar: Yes, I do.

Tim Ferriss: Can you explain what is on your necklace, and I hadn't seen this,
                    before today.

Samy Kamkar: Sure. Sure, so this is something – it's actually a micro controller,
                    so it's, basically, a little minicomputer that sits around my neck
                    that I've programmed to into something that I call a USB drive by,
                    and basically, what USB drive by is is it's something that I wear
                    around my neck, obviously, and any computer I plug this into, it's
                    – within about two seconds, takes it over forever. Essentially, if
                    you ever plugged in a keyboard into your computer, you know that
                    you can just start typing keys. Well, the awesome thing about
                    computers are that – and keyboards, is that you can do anything
                    from a keyboard.

                    You can open your current windows, or OSX. You can open like a
                    spotlight or the start menu and start typing. You can say open
                    terminal. Go into the network preferences, make all my network
                    traffic go to another server, so now, if you plug this in, all of your
                    internet traffic, whatever website you go to, any email you check,
                    goes through my computer, so I can see what you're doing, where

you're going. Additionally, it evades the firewall. There's like a firewall where it actually asks, do you want to allow this connection to this random server, Samy.PL, that you've never heard of? Well, you – thanks to this firewall, you can just hit enter. Right? To hit the accept button, so it's like, oh. I'm just gonna hit accept, and this thing is – you know it's like two inches. You know two inches by an inch, or something.

Tim Ferriss: Oh, yeah. You barely even notice it as anything, other than decorative, but of course, you're not a steam punk burner, last I checked, so it actually has a function.

Samy Kamkar: Right. Right, so you know I've actually made a video on this. I've released an entirely open source for anyone to see how it works, actually use it, and the idea is not to actually be malicious and use it against people, but to demonstrate sort of the flaws that exist in our everyday computers, in systems like USB that have existed for years, and years, and years that we don't really think about it.

Tim Ferriss: Yeah. I've – and there's another toy I want to get to, in a second, which also blew my mind. Although, didn't entirely surprise me, given the conversations we've had in the past, but I, at one point, was chatting with a former intelligence officer for, I think it was MI6, and he now does private security in Sulkin Valley and other places, and he said that if you were to go to, say, a Facebook, or a company like that, and drop off malicious USB drives that were branded with the company logo on them and just dropped them in the lobby where people check in, that 75 to 80 percent of them will get picked up and plugged into a computer on campus somewhere.

Samy Kamkar: Yeah. It seems like a high percentage, but I believe that.

Tim Ferriss: Yeah.

Samy Kamkar: I mean, man, the problem is you'll plug in – I'll plug in almost anything.

Tim Ferriss: Yeah. Well, the lobby is key, because you also get visitors who think they're getting – they've found something valuable.

Samy Kamkar: Oh yeah. Right. Right.

Tim Ferriss: All the dignitaries. Oops.

Samy Kamkar: Yeah. There's a couple of music artists, you know I love going to just shows and there's a couple artists, I'd be like [00:03:21]

[inaudible] thrown out USB sticks, which I think is great, right? With like unreleased music and I just want to go to [inaudible] and just throw these things out.

Tim Ferriss: Oh God. The drive by USB.

Samy Kamkar: Right. Exactly.

Tim Ferriss: Oh Jesus. Samy, you terrify me, but you also delight me. Tell me about this other toy, and it is a toy, right?

Samy Kamkar: This is a toy. I mean, it's not a toy.

Tim Ferriss: Well, it's a toy.

Samy Kamkar: It was a toy.

Tim Ferriss: It was a toy.

Samy Kamkar: Okay, so this is – you know I haven't released any of this stuff out, yet.

Tim Ferriss: Well, and where can people find the video, just to backtrack for a second of –

Samy Kamkar: Sure. My website has everything, so Samy.PL. That's S-A-M-Y dot P-L.

Tim Ferriss: And I will link to all these things in the show notes, as well, for everybody.

Samy Kamkar: So, this is called the Mattel IM Me. This is a product for, essentially, tweens, and it says pink, you know, I call it – I think it's fuchsia, but it says girl tech on it, and you can, essentially, text your friends, and it's Mattel you know came out with this many years ago, so that sort of teen kids could text their friends without running into the creeps and the wrong people. It's restricted to who can communicate with, but it happens to have a really cool wireless chip that a couple of other people out there, Mike Glossman, and a few other people, have found that this wireless chip is actually really, really powerful, much more powerful than texting teenage girls.

It's actually able to listen and transmit on a wide number of frequencies, including some things that I found recently like a ton of almost all garages, high end luxury vehicles. If you've ever

used, let's say a remote. You know a lot of cars these days, you hit a remote to unlock your car.

Tim Ferriss: Right. Click, click. You unlock it.

Samy Kamkar: Yeah. Beep, beep.

Tim Ferriss: Yeah.

Samy Kamkar: So, that's all with radio frequency, and normally, that's supposed to be encrypted, or at least, it's supposed to be really hard, and the thing about security that I've learned over time is that if we don't see it, we just assume it's safe. Right? If you can't see it – that's fine. It's cool.

[Crosstalk]

Tim Ferriss: Right. If it's not an open door to your house.

Samy Kamkar: Exactly. Right? As long as you don't know it's happening, it's kind of – I mean it's true, ignorance is bliss, but not until someone steals your car, so this is something that I've been working on, too, and that's something I've been demonstrating, and will come out with pretty soon, with being able to take this Mattel toy, which is now discontinued, but you can get on EBay for pretty cheap, modify it so – like here, we're actually seeing just different frequencies.

[Crosstalk]

Tim Ferriss: And I'll take a photo of this for you guys, as well.

Samy Kamkar: Cool, so like Michael Osmond is another hacker who builds amazing stuff, and he's built this spectrum analyzer, which shows us frequencies, and I've modified it here to actually record things, so like if I take a car key, we'll actually see a spike here, whenever I hit the button, and a lot of cars, you hit the key to unlock, and then, you get in your car and just press a button now, and that's wirelessly communicating with your key, as well. You don't even have to put a key in the ignition, in most cars, nowadays.

Tim Ferriss: Yeah. It was very confusing to me, when I first used it. Yeah. You just leave it in the center console, or whatever.

Samy Kamkar: Yeah. Were you stuck in there for like 30 minutes?

[Crosstalk]

Tim Ferriss: Yeah. Yeah. Trying to figure out how to turn the car on. Yeah. Showing my age.

Samy Kamkar: So, essentially, that's also with radio frequency, you press the button and it sends a signal to your key to ensure that it's there, so this device, I've essentially programmed to record that information ,and it has to do a few more tricks, and get over a few hurdles, and then, I can now start your car, unlock it, and drive away. Fortunately, this only works on nicer cars.

Tim Ferriss: Well, you know this is – I remember when we did some of our experiments in online dating, and we'll definitely talk about some of your amazing adventures in the world of online dating, but when I did an episode that involved breaking into cars, which is a whole separate story, but noticed that a lot of the higher end, in this particular case Japanese vehicles, were really easy to break into. Easier than like old broken down pickup trucks, in some cases, and it's just astonishing to realize that in certain cases, you know the security with the most expensive category of a product is the most vulnerable.

Samy Kamkar: Oh, absolutely.

Tim Ferriss: It just – it really astonished me to realize that.

Samy Kamkar: Well, you find in a lot of nice neighborhoods, the doors are unlocked.

Tim Ferriss: Oh, yeah. You know, exactly, and what I found, in this particular case, this was a week of experimenting with urban evasion and picking locks, and getting out of handcuffs, and all this stuff, and by the end of two or three days with a very minimal set of tools, I could open all of the cars that the staff had rented, who are working on the show, including like GMC Yukon's and like some very expensive higher end cars. How did you learn to do this kind of thing? Where did you start to develop this interest in this skill set?

Samy Kamkar: Yeah.

Tim Ferriss: Because you have such a breadth. I mean you have familiarity and comfort with software, obviously, and programming, but now, with hardware. Where did all that start?

Samy Kamkar: The hardware, or just the – all of the software –

Tim Ferriss: The hacking. The hacking.

Samy Kamkar: The hacking. The hacking, I mean, it started early on, so I just lived with my mom, when I was younger, and she worked a lot, and she had, typically, two jobs, and she got me a computer one day. I was probably like eight, or nine. She got me like a brand new computer, and I said, "Hey, Mom. Can I have internet?" She spent all of her money on this – on this brand new computer, because she knew that I had nothing to do.

Tim Ferriss: Right.

Samy Kamkar: Right? I was at home, it was summer. I didn't have summer camp, or anything. I was just at home, so she knew I liked computers, and she spent everything she had to get me a new – this computer, and I got the internet, and that was one of the best days of my life, and I go on there and I find that, man, there's like so many amazing websites dedicated to the X-files, which was awesome, because I loved the X-Files, so I spent all day on these websites about the X-Files, and I thought, man. I'd love to really talk to people about the X-Files, so I got into – I found a message board and I – about the X-Files, so I posted on there.

I was like, "Hey guys. I really like the X-Files, too, let's talk," and I kept hitting refresh. Right? It was back in the day of message boards. I guess we still have them, but they're called forums, now, and I was refreshing and refreshing. I wasn't getting the immediate response like I would on Yahoo, or metacrawler, back then, when I'd search, so I found something called a chat room, IRC, and I got in there and I went into a chat room and I was like, hey guys. Who wants to talk about the X-Files? It was my favorite show, at the time, if it's not obvious, and someone said, "Get out." I said, "What? What do you mean? I just want to chat. Let's just hang out and chat about stuff."

He's like, "Get out." And I said, "No." I'm not sure if I said no, but I didn't, and then, he said, "You have ten seconds to get out." It's like okay, random person I don't know on the internet, what are you gonna do? And ten seconds later, something happened. My computer crashed, and I panicked. I turned beat red. I couldn't speak, sweating, and I never encountered a computer crash before, especially, on the first day that my mom had just bought this and spent all of her savings and money on this thing.

Tim Ferriss:	Right.
Samy Kamkar:	That I just destroyed. I waited for like ten minutes, didn't want my mom to find out, disconnected it from the power, connected it back in. Thank God, it still worked, and as it was coming up, adrenaline rushing, kind of like fight or flight mode, I said that was the coolest thing ever. How do I do that?
Tim Ferriss:	You were hit by a wizard and now, how do I develop my own magic?
Samy Kamkar:	Yeah and not that I wanted to destroy peoples computers, but the ability, the power. I mean there's something really intoxicating about that feeling, about being able to do that, and that's what got me down to say, okay. Well, how do I do that?
Tim Ferriss:	And then, what was the next step, after that?
Samy Kamkar:	The next step, I learned about these things called DOS attacks in dialup service, and this was with Windows 95. It was a long time ago.
Tim Ferriss:	I was gonna say, it's a pretty good one to attack, too.
Samy Kamkar:	Yeah. You know I downloaded a program that did this, and then, Windows –
Tim Ferriss:	A DDOS program.
Samy Kamkar:	No, just a DOS.
Tim Ferriss:	Okay. Not distributed.
Samy Kamkar:	DDOS is like a newer thing, maybe that came out in like ten years ago, because DOS's were no longer affective.
Tim Ferriss:	Right.
Samy Kamkar:	So, this is just a DOS attack, and –
Tim Ferriss:	Denial of service.
Samy Kamkar:	Denial of service.
Tim Ferriss:	Making a website unavailable to other people.

Samy Kamkar: Exactly. Website –

[Crosstalk]

Tim Ferriss: By overwhelming it, or computer. Right.

Samy Kamkar: Yeah and this wasn't even overwhelming, it was just a specially crafted packet that you would send to somebody, and Microsoft patched it one day. I was like, oh no. My wizard –

[Crosstalk]

Tim Ferriss: My electronic letter bomb doesn't work anymore.

Samy Kamkar: Exactly, and I said, "Well, someone devised a way to create this program. How can I do that? How can I make my own" – it was called WinNuke. "How can I make my own WinNuke?" So I then learned –

[Crosstalk]

Tim Ferriss: WinNuke.

Samy Kamkar: WinNuke. Exactly, so back then, you called it niking, but not DOSing. Nuking, and I started learning how that specially crafted packet modified memory on a Windows computer and properly corrupted something in the cornel, and then, would cause it to crash.

Tim Ferriss: What is the cornel, just for those not familiar, which might include me? I've heard the word a lot.

Samy Kamkar: Sure. The cornel is, basically, just the brain. It's the brain of a computer, typically, so a typically more advanced operating systems like Windows, Mac, Linux, they'll have a cornel that handles all the system functions, like it makes sure your keyboard works, and your monitor works versus your normal software that sits on top of the cornel.

Tim Ferriss: Got it.

Samy Kamkar: That – from there, I mean, I had learned how to start writing software, and a lot of it also came from gaming. You know I played Counter Strike a lot. Actually, got into Quake, and Doom, then, Quake, then Counter Strike. I was probably like 14, playing Counter Strike all day and all night, and I was – you know I played

so much that I got good, but I wasn't the best.   I thought, how could I be the best?   And I was playing one day and I had two speakers, left and right, and someone comes up behind me and in Counter Strike, you can see where all your teammates are.   You have like a little radar, a heads up display where you can see your teammates, but you can't see enemies, and I heard footsteps.

They came from my right speaker, and then, panned to my left speaker, but I didn't see someone on my radar, so I knew, if they're not on my radar, it must be an enemy, but since I couldn't see them, they must be behind me, and I thought about that for a moment.   There's information going from my right speaker to my left speaker.   That means there must be positional information about the enemy.   How do I get access to that, so that's when I learned the fact that these packets from these other players are coming to my computer over the internet and they have positional information of where to play footsteps, so if you have surround sound, you'll properly hear how far, how – you know the amplitude, the volume of those footsteps and where to be panned, and once I understood and learned about packets and everything where you can just see the packet, see the actual traffic going over the internet, I could then locate every person on the map, enemy or friend, so I then created my own cheat software, and that placed everyone on the map.

I mean I could see through walls.   I actually added a pass – I started learning about how to reverse engineer the open GL, which was the graphics library that was used, so all the graphics that are displayed.   When something says it should be a wall, I said you know what?   You should actually have a 50 percent alpha transparency.   I should be able to see through it a little bit, so you see some guy crouching –

[Crosstalk]

Tim Ferriss: Turn you into superman.

Samy Kamkar: Yeah.   Exactly.   You see some guy crouching, and – behind a box, and I know exactly where he's crouching, so I just run and do like a matrix flying jump and shoot him – you know head shot, and then, the game wasn't fun anymore, and actually, soon after that, I was probably 15 at that point, there was a software called Punk Buster.

Tim Ferriss: And just to take a quick pause, you are in Pittsburg?   Where were you at the time, 15?

Samy Kamkar:	So, I was born in Pittsburg, correct. When I was 13, my mom was like do you want to move to LA, and I said, okay, and we got in her car and moved to Las Angeles, because she wanted to be in LA. I thought that was cool.
Tim Ferriss:	That's a hell of a drive. Okay, so 15, and not to interrupt, so now, you're in LA, at this point.
Samy Kamkar:	Yeah. 15 in LA, and like Arcadia, Pasadena area, and at this point, it was about far enough that I had kind of had enough of high school, not for any good reason. I just didn't enjoy it, so I just stopped going. My mom was working a lot, so I just – she was at work, so she couldn't tell me not to, so I would go – I would just stay at home and play Counter Strike, and then, work on cheats, and Counter Strike immediately became un-fun. I don't know if you ever played with cheats, but like when you have a cheat, when you have this God mode, it's not fun anymore, and fortunately –
Tim Ferriss:	God mode should be the name of your memoir, by the way, when you write it.
Samy Kamkar:	Awesome, so as soon as this – as soon as the cheat – as soon as I was using the cheat, I also released it as open source, so anyone else could use it and see how to do this kind of stuff. I found they actually created this software called Punk Buster that prevented my cheat from working, and all the sudden, it became fun again, because now, it was like a cat and mouse game.
Tim Ferriss:	All right.
[Crosstalk]	
Samy Kamkar:	How do I write my software, so that they can't detect it, and we went back and forth, so I released a new version.
[Crosstalk]	
Tim Ferriss:	That's fun.
Samy Kamkar:	Of my cheat software. It was very fun.
[Crosstalk]	
Tim Ferriss:	So, the game became the cloche and dagger defeating of the Punk Buster.

Samy Kamkar:	Yeah absolutely.
Tim Ferriss:	And similar applications, similar software.
Samy Kamkar:	And I mean, it was that. You know at this point, I'm fighting against a company full of employed developers, engineers, and I get to sit in my room and just play against them. Right? And that, I would say, taught me to understand this stuff pretty – at that point, just understanding how to break down a problem and how to break down those types of problems. Reverse engineering; you're trying to modify something that you don't actually have the source code to. You know Counter Strike wasn't open source.
Tim Ferriss:	So, when you hit a wall, or had a block of some type, how would you learn? How would you problem solve? How would you try to address that?
Samy Kamkar:	If I hit a block of some sort – so, I think I've broken down things, too. I pretty much – if I have a problem, whatever that may be, whether it's technological, or in life, and I will take something and I will try to look at two things; inputs and outputs, and that's how everything in a computer works, and that's why I think this way, probably. There are always a number of inputs, sometimes none, but there's typically something that goes in and something that comes out, and I usually want something to come out a certain way, and I look at that, and I say, what else comes out that way? Under what input conditions can I make something come out this way? Have I actually tested all the possible input conditions?
	You might think, with a computer, okay well, if I give it – if I want to take something out of memory, if I want to like read a program that I'm not supposed, what are all the inputs? I can like mash the keyboard, I can send every possible keystroke. Maybe there's no keyboard. How can I use the mouse in a certain way, but then, you think – you just think a little bit further. Like what if you take all those readily available inputs away? What other inputs are available, and then, you start to think about like the environment. What about the temperature? If you actually freeze, if you actually take nitrogen and apply it to memory, you can freeze memory, and then, you can pull it out. They didn't have to do this with Ross Ulbricht, if I'm pronouncing that properly, The Silk Road.
Tim Ferriss:	Yes.
Samy Kamkar:	They didn't have to.

Tim Ferriss: Yes, indeed.

Samy Kamkar: If you –

[Crosstalk]

Tim Ferriss: That's a whole separate story.

Samy Kamkar: Yeah. That's a whole separate –

[Crosstalk]

Tim Ferriss: Apprehended a – less than – you know five miles from my house.

Samy Kamkar: Oh that's so crazy.

Tim Ferriss: Such a crazy story. Yeah. Yeah. No, definitely. Sorry. Continue.

Samy Kamkar: Yeah. Pretty much looking at all the possible ways I can send information, or I can control the input. That's how I –

[Crosstalk]

Tim Ferriss: What would be an example of that, from your Counter Strike days, or any other days? What would be sort of a real world example of how you say, all right. Hold on a second. Let me look at the inputs and outputs in this particular scenario.

Samy Kamkar: Okay. Sure, so let's take something new that I'm working on right now that I have some demonstrations up, and that's hijacking cars.

Tim Ferriss: Perfect.

Samy Kamkar: First, it was how can we start cars? Like how – what is my goal, right? What is my intention, and obviously, my goal is not to steal cars, but to show fallacies and ways that we can protect against this, as well, but to protect against it, you have to understand it.

Tim Ferriss: Right.

Samy Kamkar: How do I start a car, normally, and I'm looking at these cars where you either use a key, or you don't use a key. Now, when cars that use a key, it's actually pretty simple, because it's pretty easy to

replicate keys. There's plenty of bump keys available. There are a number of ways to break into the car.

Tim Ferriss: Yeah. Bump keys make getting into cars really easy.

Samy Kamkar: You've learned that. You've learned that.

Tim Ferriss: I have.

Samy Kamkar: Is my car safe out there?

Tim Ferriss: Yeah. It's gone. It's all right. I won't have it for long.

Samy Kamkar: Awesome, so that – and that's actually really interesting. A lot of hackers – you know every year, there's a really big conference in Vegas called Def Con. It's been going on over 20 years, now, and they actually have a huge lock picking area where it's –

[Crosstalk]

Tim Ferriss: So cool.

Samy Kamkar: Yeah and it's not even – you know a lot of them are hackers. A lot of them aren't. A lot of them are just straight lock pickers. That's what they do. They want to be able to break every type of lock, and it's very much the same as hacking. Right? It's how can we control the environment in a way to produce the output that we want? You know this tumble lock turning. Even though I don't have the proper equipment, the key, so for the car, it's like okay. Well, I'm pushing a button. That must be doing something, and I know that it communicates with my key somehow. I don't know how. Because there's nothing – because when my keys not there, and I push a button, the car does not start.

Tim Ferriss: You're talking about the non insertion key, in this case?

Samy Kamkar: Yeah. Correct. For in this case, I'm talking about the non insertion key, just because the doing it with the insertion key has been done over and over again.

Tim Ferriss: Right.

Samy Kamkar: So now, it's the newer models of everything are now you don't have a key that you insert. You just keep it in your pocket, so as long as you have the key on you, you can start the car, so I want to say, okay. Well, how is that communicating? I look at the key and

in some cases, the key will actually have like a model number. In the US, you actually have the FCC. You're actually regulated where you can – what you can transmit and receive, so pretty much, any device you have –

[Crosstalk]

Tim Ferriss: So, you know what the band is.

Samy Kamkar: You know what the band is. If you look at the back of any phone, it'll have an FCC ID, and at least in the US.

Tim Ferriss: Oh yeah. Look at that.

Samy Kamkar: And that's because it trans –

Tim Ferriss: Looking at the back of an iPhone.

Samy Kamkar: Yeah and because it transmits and receives, so from here, you can actually look up that band, like you said. Right, the frequency band. Then, you look at how can I listen to that frequency band, and I found some devices. I found some awesome-

[Crosstalk]

Tim Ferriss: Now, would you just Google how do I listen to XYZ band, or –

Samy Kamkar: Like I mentioned earlier, I Google everything.

Tim Ferriss: Can you share what we were talking about?

Samy Kamkar: Sure. Sure, so my car's really small and it's –

[Crosstalk]

Tim Ferriss: It's – can we be specific?

Samy Kamkar: Sure.

Tim Ferriss: It's very low. It's a lotus. It's a lotus, which I just like scrambled and struggled to get out of earlier, and just looked like a complete idiot trying to get out of. It's a great car, but it was very hard for me to get out of.

Samy Kamkar: So, yeah. The top is on. It's pretty hard to get off, when the top is on, and I – man, when I got it, I loved it. That's another time I

really used Google immediately, because I'd never driven a stick before, so they shipped it to me. They delivered it at like some place in Hollywood and I had to drive it home, and I'd never driven stick, so I'm sitting –

[Crosstalk]

Tim Ferriss: Jesus.

Samy Kamkar: I'm sitting in it on my iPhone looking at like – I'm Wikihow.com, I think, of some – you know I Googled, how do I drive stick, and that's – so, I learned on the way. I didn't learn well.

Tim Ferriss: That's a hard – that's a really rough entry.

Samy Kamkar: Oh man.

Tim Ferriss: Into manual transmission.

Samy Kamkar: Yeah. Drove home, stalled a few times on the one and a half miles home, but I got out and just was an idiot and just like stumbling out for five minutes trying to figure out how to pull myself out of these bucket seats, because yeah, it's just very difficult.

[Crosstalk]

Tim Ferriss: It's kind of like imagine that you have like your pants pulled down to just above your knees and you go down to a full squat, and then, you have to like dive forward. It's like ergonomically very similar, so you Googled.

Samy Kamkar: Yeah, so I drove it around the first week and man, I pulled up somewhere, nice place, a bunch of people. I had my brand new car. This felt good.

Tim Ferriss: Not just a brand new car, brand new Lotus.

Samy Kamkar: Brand new Lotus, and I'm like this feels good. I opened the door and I like struggle, and I'm like, should I just get back in and drive away? I think some people saw me, so after a week of this – just embarrassment, I Google, how do I get out of a Lotus, and to my surprise and delight, people have documented how, and I found a YouTube video that was very instructional. I gave it a like. I did not leave a comment that I needed to learn, but I learned how to get out of my car, through the YouTube video and online, because it was – it's just really embarrassing, and yeah. I learned how to –

you use one arm – you use one hand on the steering wheel and you pull that, because that is firmly connected to the car, the other hand on the side of the chair, and then, you just thrust your arms, so you emerge.

[Crosstalk]

Tim Ferriss: You superman out of the –

[Crosstalk]

Samy Kamkar: You superman out. Yeah. You superman, and then, smoothly catch your balance.

Tim Ferriss: So, the parallel here with the band, if you look at the back of a phone, or device, the back of a key, and you're like oh, look at this. There's a FCC registration.

Samy Kamkar: Right.

Tim Ferriss: And I can identify what the band – the frequency band is.

Samy Kamkar: Correct.

Tim Ferriss: For this wireless key.

Samy Kamkar: Right.

Tim Ferriss: For whatever brand X car happens to be, and then, the next step is Googling, or determining how to listen in on that frequency.

[Crosstalk]

Samy Kamkar: Correct. Correct and you know you don't – if you don't – and I don't know much about frequency bands, but I know that you know [inaudible] FM radio. That's a frequency band. FM. That's actually frequency modulation. It's a type of – it's a way to communicate data.

Tim Ferriss: What is AM? Amplitude modulation?

Samy Kamkar: Exactly. Amplitude modulation. They actually adjust the way that they're sending data. Amplitude is like volume, so they're changing the volume to send data, where frequency, they're actually changing the frequency, so when you listen to 105.9 FM, you're listening to 105.9 megahertz, and you're – the frequency is

actually changing from like 105.8 to 105 – or 106. That's actually why you can listen to FM radio a little bit off, right? Sometimes you hear FM, if you're a little off, so that's another frequency, and a lot of these actually – car keys use AM. They're not an AM that a radio in a car would listen to, but they are AM.

Tim Ferriss: So, it's the size of the wave, not the number of the waves in a given time frame?

Samy Kamkar: For amplitude, it's essentially like how much – how powerful that wave is.

Tim Ferriss: I see.

Samy Kamkar: It's like volume, right? It's like yelling versus being quiet.

Tim Ferriss: Right.

Samy Kamkar: So, that's the different in amplitude and modulation is just a fancy word for change, so –

Tim Ferriss: And then, what would be the next step, after that?

Samy Kamkar: Yeah, so I found a few different devices that I can use that are low cost, and a couple of people – you know a couple security researchers have made a lot of this stuff readily available. I mean it was other researchers who found that you can use this Mattel toy to actually listen to a wide number of frequency bands, rather than you know in the past, just a few years ago, it'd cost thousands of dollars to get something that could listen to all of the frequency bands that like something like this would output and for you to actually access all that data, so once I got a device like this, I'm actually able to see the data.

I can actually get – turn that – when you press that button and it sends a signal in 433 megahertz that I can see that data, what that binary data is, and if I send it a bunch, if I hit the button a bunch of times, then, I see it over time, and I see what changes and what doesn't change, and I can make assumptions, because then, I can compare it to another car and say, oh wow. This beginning is always the same between these two cars, so that must mean it's this type of car, but this part here is different between the two cars, so that must mean this one's specifically for this car, and this other identifier is for this other car. Usually, there's actually is decent security in most cars, it's called rolling codes, where the code changes every time.

Tim Ferriss:	It's kind of like Google authenticator, or something like that.
Samy Kamkar:	Yeah. Yeah. It's – yeah. It's like an additional factor of authentication where the number changes, so if I – let's say there's only 1,000 possible ID's, or passwords, that would work to open this car, or turn this car on. If you send ID 10, it turns on, but the next – but if I listen to that and replay it, replay that 10, it says oh, I've already seen 10. We're on a new code, now, so it's not gonna allow that, so that was the first problem I ran into, where I can't send the same code, so if you go up to your car and you turn it on, I can listen and I can store that, but if I replay it, it's not gonna work, because the car knows that that codes been used.
Tim Ferriss:	Now, is the car recognizing – is it the frequency, or the tune, effectively of that like [noises] that type of stuff, electronically like a bird song that is triggering the car, therefore, if it didn't change from a 10 to whatever was next, you'd be able to replay that sound auditory, or how –
Samy Kamkar:	Not with audio.
Tim Ferriss:	Okay.
Samy Kamkar:	I mean so, audio is essentially vibration of air.
Tim Ferriss:	Right.
Samy Kamkar:	Where this is radio frequency.
Tim Ferriss:	I see. Right, so the audio is really just a cue for the human to be like oh –
Samy Kamkar:	Exactly. It's just for the human.
Tim Ferriss:	My key did something.
Samy Kamkar:	Yeah, yeah. It's just a really silly sound that they used.
Tim Ferriss:	Which I like to reenact, as some of you may have noticed, that will increase with the more wine that we have, most likely. Got it, so you ran into the problem that this is a rolling code.
Samy Kamkar:	Exactly.
Tim Ferriss:	Some type of prefix, or whatever might be this changing over time.

Samy Kamkar:	Right, but there's a couple exploits here. There are a couple possible vulnerabilities. If you're away from your car, if you're not close to it and you hit the button and I capture that, I can play it, so if I came into your house and I had my device and I pressed the button on your key, I could then record it, because your car is far enough that it didn't see that code, so now, I can use the code, but that's not good enough, because now, I'm in your house. I have access to your key. That seems – it seems like I already have physical access and I just live here.
Tim Ferriss:	Brute force.
Samy Kamkar:	Yeah.
Tim Ferriss:	Approach.
Samy Kamkar:	So, that's just not good enough of an exploit, really, at least for me, so I want to take it further.
Tim Ferriss:	It's not very elegant.
Samy Kamkar:	It's not elegant at all, so how can we make this better? Now, another thing that I've seen is that these – a lot of these devices are very inexpensive. They don't want to spend too much on these parts. They want to make it work and work well, so if you actually send a bunch of other data on that frequency, it will not work, because now, the car's confused and it sees too much information. Now, you could call that jamming, and you don't need to send a big signal, but I could – if you take another car with – that communicates on the same frequency with a key and you just hold down your lock button, while someone else is trying to get into their car, you'll prevent them from getting into their car.
Tim Ferriss:	Oh my God.
Samy Kamkar:	So, you can actually hold – and for totally different manufacturers, most of them are using the same frequency, because there are only certain frequency bands you can use for this type of stuff, so you see someone and you have like a – like I was using a Cadillac car key, and it transmits so far. If you have one of those really powerful transmitters that hits your car from far away and it lights up.

[Crosstalk]

Tim Ferriss: And you just hold lock.

Samy Kamkar: You just hold it down. Just hold lock down.

Tim Ferriss: So, you could just sit in the parking garage drinking –

[Crosstalk]

Samy Kamkar: It's a DOS attack on cars.

Tim Ferriss: Drinking your coffee, holding down the lock button, watching people lose their shit.

Samy Kamkar: Not being able to turn down their cars. Yeah.

Tim Ferriss: Yeah. Right.

Samy Kamkar: Just sitting in there.

Tim Ferriss: So, ostensibly, is there a way – and this is just me with my science fiction cap on, or conspiracy theorist cap on, perhaps, is there ostensibly a way if they're limited – if that band is so uniform, that someone could deploy some type of wide reaching jamming to incapacitate cars over an extended period of time?

Samy Kamkar: Yes. I mean you need a lot of power, right? The further you want to go, you need a lot of power. That's why FM stations, right? They have such big towers. AM can actually go longer, and so, there are a couple of ways that you can do this, but yeah. You could, with enough power and an antenna, you could prevent a lot of cars from starting.

Tim Ferriss: Wow.

Samy Kamkar: At least, if it requires – if it's using the radio frequency based stuff. Right? Not a normal key. Normal key will work fine.

Tim Ferriss: And I'm sure there are people out there listening to this who are asking themselves, why on Earth would these security researchers make these exploits known to the general public? Isn't that just giving a blueprint to be [inaudible] to exert malice in the world, or create chaos, and how would you respond to that?

Samy Kamkar: Oh, I mean that's a –

[Crosstalk]

Tim Ferriss:	Now, keeping in mind, and full disclosure, I'm one of those kids who bought the anarchist cookbook and was looking at like improvised munitions and put himself inadvertently on every watch list in the domestic United States, but – so, I'm fascinated by exploits. I find them infinitely interesting, but at the same time, you know this a question that comes up, so –
Samy Kamkar:	Yeah. First, say, when I was kid, I was like 12, and once I was 12, I had my own website, and I found the anarchist cookbook, so I put up a copy of it up, because I thought this was awesome, and then, one day, my mom comes home from like one of her jobs and was like, "Samy, someone at work was look – found this thing on your website, and he was actually up this thing, anarchist cookbook, and found it on your website. Why do you have this thing?" I was like, "Well, it's awesome, but why was he looking?" I'm like, he had found it inadvertently, not on my site, but just through a web –
Tim Ferriss:	He was searching for it. Right.
Samy Kamkar:	Searching for it. I was like, I don't know. I'm not sure, and I mean, it's interesting information, but you ask a good question, right? Is this a blueprint for malicious people to act upon, and it can be, but I don't think so, and the reason I say this is I've been doing – I've been in security and hacking long enough that – many years ago, what I would I do is I've – if I found a new exploit, I would – sometimes I would contact the company, and I would let them know about this. I would say, hey like totally free, just want to let you know I found this vulnerability. You guys should patch this, because it's bad for your customers. Your customer data could be leaked. You could be hacked. It could hurt you. I haven't done anything. I've just found it, and sometimes, you get a response. Sometimes, you don't. Sometimes, they fix it. Sometimes, they don't.

And then, I found some other vulnerabilities, and then, I would write publically about it. I'd say, hey. Here are some things that we need to fix. This is a general problem, not something I can just email a company about, and you know, nothing would really happen. A couple of security people would read my blog and say, oh neat. That's like some really interesting information. Thank you, Samy. Nothing changes, and then, one day, I said you know what? Nothing ever change – a lot of these things don't change, when I talk about them, when I contact the proper people who have the ability to change. |

[Crosstalk]

Tim Ferriss: Going through official channels.

Samy Kamkar: You're going through official channels, so I released, this time, not only a blog, and this is – there was something I released a few years ago, and it's called Ever Cookie, and essentially, what this does is it plants a tracking cookie on your computer, kind of like when you go to a website and you know, if you go to Google and you make a search, and then, you go back to Google a week later, it knows who you are. It knows that you did that search last week, and that's through a cookie, but you can delete your cookies, and I found that some companies were also doing – they would install a different type of cookie called like a flash cookie, so that if you deleted your normal cookies, they would still know who you are. It's a bit suspicious.

Tim Ferriss: Yeah. That's creepy.

Samy Kamkar: Yeah. It's a little creepy and a – you know a number of people knew about this, for many years, and it got talked about, and talked about, and talked about for years. I thought, I mean these aren't – someone had released a little bit of software to try to prevent it, and I thought, there are some other ways of doing this, and I was in Dublin, at the time. First time I left the US; we were talking about it earlier. I thought, it'd be cool to create something that can really plant itself, like in every possible way that I could think of, and I sat down. I was like, there's got to be at least four or five ways, and I thought about four – about 14, of 15 ways to plant software, or not software, but a unique identifier that will then track you every time you come back to that website, or any site that has – that tries to track you using that software, so it would install a unique identifier in your cookies, in your flash cookies, and your Silverlight, and Java, in your history, in your cache, just everywhere, and if you deleted almost everything, except one, it would then re spawn.

It would recreate everywhere, so you could never get rid of it. Literally, most browsers could not get rid of this, so if someone wanted to track you, they would always be tracking your web presence, at least on those sites that host it, and this got press. This – I mean this was interesting to the security community, because the security community had been talking about this for years, but no one really listened. People had been demonstrating companies that were doing more mediocre measures of this.

[Crosstalk]

Tim Ferriss: Right. Junior varsity versions.

Samy Kamkar: Exactly. Yeah. They were going JV and this was, finally, something that anyone could use; entirely open source. I made it entirely free. I got a lot of hate mail for it, but what was interesting was it was a few months later that every browser vendor had changed. Every major browser had changed. I don't know if you remember a few years ago, when you wanted to delete your history, you deleted it in one place. If you wanted to delete cache, you have to go into a different drop down and delete it there. If you want to delete your recent downloads, you go somewhere else. All this stuff was segregated and no – and no sane person would actually go to all – through all this effort. Now, when you delete your privacy information, you go –

Tim Ferriss: It's all centralized. It's –

[Crosstalk]

Samy Kamkar: You go to file, delete privacy.

Tim Ferriss: One checklist.

Samy Kamkar: One checklist, and that's – I saw that change. That was probably the biggest thing that made it – you know that impacted me to understand this actually produces change. Yes. Maybe someone will be able to use it maliciously, for a little bit, but you know what? People have been using it maliciously for years, and no one actually knows that, because talking about it doesn't do enough.

Tim Ferriss: Yeah. It's not just enough to talk. You need people to listen, and they're definitely different levers you can pull to make that more effective.

Samy Kamkar: Sure. Sure.

Tim Ferriss: So, speaking of which, and I do want to – if you're open to it, chat about Myspace, at one point.

Samy Kamkar: Sure.

Tim Ferriss: Because that's a hell of a story. Oh my God, folks. Don't go away. Coming right back. The next subject I thought we could dig into a little bit is online dating, so getting people to listen. We

had a lot of fun with the episode on Tim Farris Experiment, which is now digitally available, by the time people are listening to this, which is amazing, after so much effort and lawyering, and everything. We had a lot of fun on that episode, and you take the same scientific approach, and I really feel like what you do is using the scientific method, really, at a high level to attack some of these engineering problems and challenges. In the world of mating and dating, so could you talk about some of the ways you have thought about online dating and improved your prospects in online dating, and we can dig from there?

Samy Kamkar: All right, so –

Tim Ferriss: I don't even know where to begin. My mind is flooded with all the possibilities that we could discuss.

Samy Kamkar: Okay, so I used online dating maybe – a long time ago, ten years ago, 11 years ago, and I met someone great, and had a great relationship for a few years, and that was awesome, and I think I got back to it, maybe – let's see, like five or six years ago. I had gotten my – you know meeting people is frustrating. I wanted to meet more women, so I thought, okay. I'll do online dating again. I had a good experience. It was hard. It was a lot of work. It was painful, but also fun, at times, and it was successful, so I thought, okay. I'll do it again, so I went on sort of the hip dating site at the time, and I –

Tim Ferriss: What was that?

Samy Kamkar: That as OkCupid.

Tim Ferriss: OkCupid.

Samy Kamkar: Yeah and I made a profile on there a few years ago, and I started reaching out to people, doing searches. You know I was doing a lot of – I had also a lot of work. I had a lot of stuff to do with my life, a lot of stuff I liked doing. I did not like going messaging people, not getting messages back, scrolling through endless lists, having so much data to go through, and then, not even knowing whether – I mean I guess the biggest problem is I wasn't getting messages back, right? I'm like what happened? I thought I was eligible.

Tim Ferriss: What's the failure point here?

Samy Kamkar: Right. Like damnit, so I thought okay. Well, you know I would I approach this – and this was after a few frustrating weeks. I thought how would I approach this, if this were a problem with my company's website, or something? What if I were trying to make sales online, how would I approach this differently, and I thought okay. Well, if I were doing something for my own company, or my own business, or my own product, or whatever, I would probably – I would start with some basic AB testing, some multi [inaudible] testing. I would try comparing what one group of people did versus another group of people, so I didn't have – I didn't want to spend too much time in this, but I wrote a little script, and all that did was every day, that would cycle, that would change my photo, my primary photo, and Ok Cupid would also show you how many hits you would get that day, so every day I would check back and that would store it in a database.

                  You know I had it – I did throw up a couple of my bad photos, just as a control, or something, and had my best photos, and some medium photos. My best photos were awful. They were terrible. What I thought was –

Tim Ferriss: Oh, performance wise.

Samy Kamkar: Performance wise. What I thought looked great with the stupid smirk on face, was terrible.

Tim Ferriss: Just bombed.

Samy Kamkar: It bombed, right? No one clicked. Right? This is in searches and probably in messages, as well. Nobody clicked the photos that I thought were good, and a couple of these photos that I just thought were mediocre, subpar. Just they got clicks, and there are certain things I learned that – I mean I will say are chick crack. Things that you know when guys see certain things on website, they click. Their brain shuts off and they click, and they were the same things for girls.

Tim Ferriss: What are some of those things?

Samy Kamkar: Well, the thing that did best, I mean just landslide, was a picture of me and a cat sitting on my shoulder, so they weren't clicking for me, and this had nothing to do with me. Let's be clear. They saw a cat, but that's okay. I'm just trying to get you one step further, right? One step further where then you can learn a little bit of my personality, maybe you'll try to read this text I put up, so that was – that instantly, after learning that, I was just blown away. I was

like, wow. I've been doing this wrong. I am not as – I have no idea what other people like, apparently, and that's fair. I mean I don't, so I should use data and try to help myself and help other people. I think it's beneficial.

Tim Ferriss: And we did some absurd permutations of this.

Samy Kamkar: Oh geez.

Tim Ferriss: For the TV show. I'm not gonna spoil it, but we went for the gold with some of these profile pics. The –

Samy Kamkar: Of you. Of you, let's be clear.

Tim Ferriss: Of me, of me, of me. To be clear and there were other people involved, like Neil Strauss, who really was not in favor of any of this, but – he was the author of the game, for those people who don't know. The – what are some of the – now, at one point, you – didn't you create a female profile, to observe what came in as inbound, in terms of –

Samy Kamkar: Absolutely. I mean I'll start with this, I'm not a – I try to be as transparent and honest with people. I hate deception and I don't try to deceive people, but for AB testing, it's for science, so I created a profile of what I thought would be someone I would like to date, right? Someone who is attractive.

Tim Ferriss: What did you call her, do you remember?

Samy Kamkar: I don't know. I'd have to look that up.

Tim Ferriss: All right. No problem.

Samy Kamkar: I'm pretty sure I stole another girls username, and then, changed a number.

Tim Ferriss: Got it.

Samy Kamkar: I used text from a profile that I really liked. I used a friend's pictures, who allowed me to, and I put that up, just to see what – if I were a female that I personally would be attracted to, what are they experiencing on online dating site, because I have no idea. I thought my witty messages would really work, and they weren't, so – you know I'd always start with the subject hello, and then, a really great message, and after the first day, I got over – no, close to 100 messages. Close to 100 emails, as this attractive, interesting

female. That's – I mean terrible. There's no possible way anyone's going to go through all those messages, and I'm looking at the messages, and the first thing I see is the same subject over and over and over that I probably used over and over and over. They're all saying, basically, four things – three, or four things; hello –

Tim Ferriss: That's yours.

Samy Kamkar: That was my line. Yeah. That's my line. You know hey, wink, winky face, thought we should chat, and want to fuck?

Tim Ferriss: Nice. It's a strong opener.

Samy Kamkar: And it's actually – all of those were used a lot. It was surprising, and I felt – I was offended. As a fake female on this website, I was offended, and I thought wow. These are all the same. Even if it were interesting, if it's all the same, then, it's irrelevant, so I immediately learned, okay, my subject line has to be different. It has to be interesting, it has to be non-offensive, and it has to be not boring, so then, I went into another city. I went into actually another state, and I tried mailing lots of people different subject lines, as a man. Right? As my own profile, in a state that I wasn't even in. I'm not actually going to meet these people. I'm sorry if I emailed you, but I just wanted to know what subjects had the best read rate, and then, response rate.

I found a little exploit that allowed me to get the read rate, because normally, you can't see how many people open your message. Once I found this, I found how many people opened a message, and then, I can also track how many people responded, right? And that – the open rate allows me to measure how well – how good is the subject doing, the subject line, and I tested a ton of different subject lines, to see what worked best, and I'm sorry to say it, and I've been trying to curse less, but the best subject line was fuck you. Now, I'm not saying that [inaudible] elicit a positive emotional response, but that's not immediately the goal. That's not immediately the goal, and that's okay, because – and I found if you're still a dick in the email, the response rate is zero, or very little and some mean things, and I don't think you should ever be mean to someone, and my intention, again, is not to be mean. I'm trying to see how can I get someone –

[Crosstalk]

Tim Ferriss: It's like clapping in front of their face.

Samy Kamkar:	How could I get them –

[Crosstalk]

Tim Ferriss:	Really, really hard.
Samy Kamkar:	to open this, and I found the best way to get a response, and a positive response, is to say I only did that, so you'd read this message. You're probably getting a ton of emails from other guys that are saying hey, or want to fuck?
Tim Ferriss:	And she's like, how did he know?
Samy Kamkar:	Exactly.
Tim Ferriss:	How did he know?
Samy Kamkar:	Exactly, so it's really – I mean it's just trying to understand what someone else is going through and how can I maneuver that better, and then, also, ultimately, I'm always transparent. You know well, whenever I meet anyone, I tell them exactly all the tactics, just because I mean, if anything else, it's interesting conversation, especially, with a woman. It really – it was the best first date, every time. You just get to talk about something. Like immediately, you have something to talk about. You're both on this dating site. You're both trying to meet somebody, and you're both upset about results. Right?

[Crosstalk]

Tim Ferriss:	How inefficient the whole thing is.
Samy Kamkar:	So, that was always really positive, so yeah. I'm not suggesting being an asshole, but I am suggesting that it's good to learn about ways to just maneuver past and actually get someone to read that letter and see whether you are an interesting person, whether you would jive.
Tim Ferriss:	With online dating, for someone who does not have technical jobs, so for someone who cannot personally – doesn't have the capacity to write scripts, or what not, what would your advice to them be, in this day and age?
Samy Kamkar:	That's great. Okay.

Tim Ferriss: There's a wide variety of toolkits available. Right? You have the
                  Ok Cupids, the Match.com's, Tinder.

Samy Kamkar: Oh sure.

Tim Ferriss: Of course. What would your advice to a non-technical person be,
                  and let's assume, for the sake of argument, that since they would
                  waste, as a guy, you're gonna waste hundreds of dollars on drinks
                  and dinners that go nowhere, so let's assume they have a budget.

Samy Kamkar: Okay.

Tim Ferriss: A little bit of a budget, like $500.00.

Samy Kamkar: Okay.

Tim Ferriss: What would your advice to them be?

Samy Kamkar: Okay, so the first thing you do is you get a record player, and you
                  take your iPhone and you attach one of those pens that have the
                  conductive tips, so you can draw on your iPhone with it, and you
                  attach it to the record player and you put Tinder beneath it, so the
                  record player just spins and just checks how you swipe on –

Tim Ferriss: Swipes, right?

Samy Kamkar: Swipe over. I saw a video of this, and it was the funniest thing
                  I've ever seen. Just someone who attached this little nub to a
                  record player that would just swipe on Tinder. I thought that was
                  really funny. Okay, no, so realistically, you know I don't know.
                  The site might not be around anymore, but instead of writing a
                  program, you could use a site like Hot or Not, or if they're any
                  sites like that, that unfortunately, measure appearance, but that's
                  important. It's very important – your photo is the most – I learned
                  that it's the most critical.

[Crosstalk]

Tim Ferriss: Or OkCupid, which allows you to upload photos to do my cupid,
                  or my best face.

Samy Kamkar: Oh, right. They have that, now. Correct. Okay. Yeah, yeah, so
                  my best. You're right. My best face on OkCupid allows you to,
                  essentially, do the same thing, where you can upload a number of
                  photos. You rate other people's photos. Essentially, and other
                  people rate yours, so it's a really cool system where you learn what

photos of you are most attractive, and I found the photo of Brad Pitt was my most attractive photo.

Tim Ferriss: Picture of – my picture of Jason Statham with just doing Scrooge McDuck backstroke in a pool of money was –

[Crosstalk]

Samy Kamkar: [Inaudible].

Tim Ferriss: Yeah. Right. Surrounded by penguins. I don't know about –

Samy Kamkar: Penguins.

Tim Ferriss: Why do penguins work so well? First, identify which photos work the best for you.

Samy Kamkar: The photo's the first thing anyone sees.

Tim Ferriss: And we did this in the episode, too, so for people who want to see how off I was, how incredibly off I was on my predictions, you can check that out. It's on iTunes, probably, at this point, but so you identify your best photos.

Samy Kamkar: Absolutely.

Tim Ferriss: What's next?

Samy Kamkar: Okay, so now, if you're like me and had a terrible photo, you're now receiving messages, so you're already – he already like happy, but that's not enough. You need to, because you need to be a little bit more selective, so what's next is I would say testing different subject lines. I wanted to test so many people that I went to a different state, and I automated that, but you can test it yourself. Right? You can use the same message, and some of these services allow you to pay a little extra to see read rates and open rates, and essentially, analytics for your dating profile. Pay that extra amount and make changes. Make changes often, and record that data. Always record it. Keep it in an excel spreadsheet. You will learn so much, so the next thing is how do you communicate? This is just the way it is. If you're a guy, you need to be reaching out to people. Right? And you should be –

Tim Ferriss: Yeah. If you haven't figured that out, yet, the hot chicks are not gonna come knocking on your door. I hate to tell you.

Samy Kamkar:	Yeah. I mean if you want to be selective, you need to work for it, so testing different subject lines, and another thing that I learned, that you should use immediately, is while messages are great, what I found was very – was really, really effective is you could go messaging for weeks with someone who is really interesting, and if you're – if the service you're using has chat, like Ok Cupid has chat, chat. Select people as your favorite, so you see them whenever they're online. Don't stalk them, just like when you see them once, then, talk to them. Communicate with them, and –
[Crosstalk]	
Tim Ferriss:	What's a good opener, in your experience?
Samy Kamkar:	I try to make it relevant to their profile, right? You don't want to appear like – you don't want to be the people who don't actually read the text, right? You actually want to learn about that person, right? There's a high probability she's looking for someone who has read the text, who has read her profile, right? She put in time on that. You put in time on that, so read it. Don't – if you're just – you might find you might not like this person, so read the text, and then, try to make some simple conversation. I would say immediately – the best thing I learned is it's not even about the opener, at this point, because you're chatting, so where a message, the subject line is critical, because if it's not good enough, she's not going to open it. In a chat, the chat's open. You can get a couple lines of text, before she closes it and says I'm not listening to this.
Tim Ferriss:	A little bit more margin for error.
Samy Kamkar:	Exactly and I find the chats are always read, right? If you're saying something in chat, it's always read. Do not sit around and talk and just wait for them to respond to everything. Instead, have an interesting story. They should be legitimate story in your life, but everyone has something, and if you don't, I mean go and talk about your life more. Find an interesting story in your life.
Tim Ferriss:	Or do something interesting.
Samy Kamkar:	Or do something. Absolutely. Go –
Tim Ferriss:	If you don't have at least one good story, you need to get outside more.

Samy Kamkar:	You need to go running naked in the quad. Okay? So, have short but sweet story prepared, a true story about your life, and just dish it. Just start talking. Who cares what the other person thinks right now, because they're probably not gonna respond anyway. Right? If you're listening and you care about this, this is probably because it hasn't been working, so try this.
Tim Ferriss:	I have to ask, and feel free to reject this question, but what was your go to story?
Samy Kamkar:	Oh. Go to story. Okay. Okay. I think we may have done something similar. Was it on point tactical?
Tim Ferriss:	Oh yeah. Yeah.
Samy Kamkar:	Okay.
Tim Ferriss:	Yeah. With Kevin Reeve.
Samy Kamkar:	Yes, so I had recently done this urban escape and evasion class that it sounds like you have taken and are an expert it. I'm sure you've done a lot –
Tim Ferriss:	Well. I'm amateur. I'm like a green belt.
Samy Kamkar:	You've actually – you've done more things than I learned when I went to him, so he's upped the game and that's really cool. I'm gonna ask you some questions later, but I took this course, urban escape and evasions, three days in LA, and like you mentioned, I mean the – he taught me how to escape out of LAPD handcuffs. Right? Get out of riot flexi cuffs. You know my time, when I went, he did not – we didn't learn about the newer cars. We learned about older cars, so I was stuck in like 75 Hyundai, so you know that I stole, and that was – I mean the fact that on the third day of this class, you know I got picked up in a van. They put a hood over my head. It was strange, because kind of like the eco friendly, the green environmentally friendly type of like Albertson's bag.
Tim Ferriss:	They put like a Whole Foods bag over your head?
Samy Kamkar:	Exactly. It was exactly that. They put like a green Whole Foods bag over my head, so I couldn't see. They took my wallet and phone, and drove around LA, and I had to get out, escape from the handcuffs, and run around Las Angeles without money, and I would tell some tidbits of the story about how I –

Tim Ferriss:	Now, this is all in chat?
Samy Kamkar:	All in chat.
Tim Ferriss:	So, it's like hey, what's up? And then, you're like let me tell you about the time I got out of LAPD handcuffs, or what's the transition?
Samy Kamkar:	Okay. Good question.
Tim Ferriss:	No. I'm like – I'm so into the specifics, because when it comes to all of this, I remain, to this day, complete like three finger monkey fumble all of this stuff. I'm such a fucking idiot, so I'm really interested in the specifics.
Samy Kamkar:	Okay. Sure. Sure, so I say, hey. What did you do today? That's pretty much how I would start that conversation. What did you do today? Not what do you do. No one cares. This is not an interview, right? What did you do today? If – you know she's either gonna say something interesting, and you can add on that, or you're too afraid to comment on what she said, or she's not saying much. Just say, went to work. Right? Went to school, you know did nothing, whatever. Watched Kim – watched the Kardash –
[Crosstalk]	
Tim Ferriss:	[Inaudible].
Samy Kamkar:	See, I tried that. That didn't work well.
Tim Ferriss:	Yeah. Right.
Samy Kamkar:	When I answered that.
Tim Ferriss:	Okay, so you ask what did you do today.
Samy Kamkar:	I say, well, what did you do today. She's saying something. She's saying something. Often, it's irrelevant. Often, it's the same thing that everyone else says. Right? As a guy, you're also receiving a lot of the same thing, too, so as a girl, you know if you really care, then, also you know, pay attention to be different. Be different, if you can. Be interesting, because you probably are, so show that, so what did you do today, and then, maybe they'll ask what did you do, and if they don't, it doesn't matter. You can still say, because at this point, if she didn't ask, she's not interested. She

only was – she's already not interested. It can only go up, from here.

Tim Ferriss: Right. There's only upside.

Samy Kamkar: Exactly, and if she asks, then, she asks, so answer, and I said, oh well, just recently, this happened, and if it's six months ago, fib. Say just recently, this happened, and that's the transition.

Tim Ferriss: Got it. Got it.

Samy Kamkar: I say like last weekend, or yeah. You know I've just been going over this crazy class that I took.

Tim Ferriss: Cool. Definitely.

Samy Kamkar: And talk a little bit, right? Do more talking. Offer something interesting.

Tim Ferriss: So, we've never talked about this, but I will ask anyway. The jump to in real life, to IRL.

Samy Kamkar: Quick. Quick. Quick.

Tim Ferriss: All right. Quick.

Samy Kamkar: Quick.

Tim Ferriss: Tell me more.

Samy Kamkar: Every time I do this –

[Crosstalk]

Tim Ferriss: And how do you – and what's the verbiage? What's the transition?

Samy Kamkar: Sure. Okay, so every time I would have like emails, messages go back and forth, it would be great, because the emails you actually get good information back. If you're doing back and forth emails, you're actually communicating a lot, and a lot of people are – I mean I think it's not so much anymore, right? I started – you know I was – I did online dating maybe three times in my life, and it was all great. Like it actually was successful, every time, and I'm glad I always did it, and back then, I mean when I first started, I was 18, and I'm 29, now, so that was 11 years ago, and people were more fearful of meeting someone on the internet. Right?

That was a little different. It was different, back then. Right? You didn't use your full name. It's not until Facebook came out that people used their full name, because they had to, but you didn't want to miss out on this social network. I mean, I didn't it, so I'm sorry. What was the question?

Tim Ferriss: The jump to in real life.

Samy Kamkar: The jump to IRL.

Tim Ferriss: IRL.

Samy Kamkar: Okay, so what I learned was messaging back and forth was comfortable and it actually made it more difficult to jump into a meeting. On chat, you've quickly communicated. If you have an interesting story, you've quickly communicated that you have interesting things to talk about. You're confident enough to talk about it. You've at least – if you have other stories like this, you're probably an interesting person. I mean you're probably already are an interesting person, and after about five minutes, and don't linger. Don't wait until the conversation dies down. There's a Seinfield episode where I think George Costanza found that it was best when he left at the top, at the height, of the –

[Crosstalk]

Tim Ferriss: Just like the Rocky Marciano approach to dating. He's like, all right. That's my best joke, and I got to go.

Samy Kamkar: And I'm out. Exactly. Right? Because you let it linger, and then, it's just boring. You're just remembering how it ended. Well, make it end good. You just had this awesome story. She's at the edge of her seat, and she's like, oh wow. That's like – that's really cool. That's really interesting. It's like, hey. You know I have to run. I have to go do some other interesting thing.

Tim Ferriss: I have to go rescue some kittens down the street.

Samy Kamkar: From some penguins.

Tim Ferriss: Yeah. Exactly.

Samy Kamkar: And from there, you say you know, I have to run right now. Get some information, because you don't want to meet someone just because they said LOL, smiley face. Right? You also – they need

to feel like they've earned that value, as well. No one wants to – I don't like it when someone comes up and just offers me a bunch of stuff for no reason. Like what do you want from me?

Tim Ferriss: Right.

Samy Kamkar: You want for something from me, so that's – just try to think in their position. Try to put yourself – like reverse the role, and what would happen, if that happened to you? Conversate a little bit more. Try to learn some interesting things about them. Ask them questions that are not common, and you can learn some questions from the emails. Right? If you create a fake profile in another state, don't respond to people. I think that's deceptive. Just let emails come in. Right? And see what people say, and learn from those, because you'll see the common questions. The questions that you think are really unique that everyone else is asking. Don't ever ask those. You'll learn those, over time. Instead, try to think of something different, and I didn't – I thought I was being unique, but I was asking the same –

[Crosstalk]

Tim Ferriss: Are there any unique questions that you relied on consistently?

Samy Kamkar: I mean you – I would say I would just ask about things that I actually wanted to know. Like I wanted to know –

[Crosstalk]

Tim Ferriss: Would you rather lose your front teeth, or cut off your thumbs? Would you ask them questions like that? I'm just kidding.

Samy Kamkar: No. No. Nothing that –

Tim Ferriss: That's a dude wine type of question, probably not appropriate for online dating.

Samy Kamkar: No. I'd just ask them like how was your day, not what did you do today, or like what was the most – I mean, implore them to give you the interesting information about their life. What is the most interesting thing that happened to you in the last week?

Tim Ferriss: Yeah.

Samy Kamkar: And now, they're going to recall and re-feel, like have the same emotions that they felt at that most interesting time of their life, in the last week.

Tim Ferriss: Yeah. Got it, so I have to go to do this other interesting thing, and then, what?

Samy Kamkar: So, I have to go. I have to go and do X. Make a joke, if you can. I have to go save some penguins. That's funny, right? I think that's funny. Maybe it's not, right? AB test that, but you know, let's grab a quick coffee this week. I did dinners a few times, and I quickly ran into having dinners with a bunch of people I really didn't want to have dinner with.

Tim Ferriss: Yeah. It's a one to three hour plus commitment.

Samy Kamkar: Yeah. Yeah, so then, it's coffee.

[Crosstalk]

Tim Ferriss: Coffee's the way to go.

Samy Kamkar: It's coffee. You know it's easy to leave, it's quick, you don't have to – it's not a big deal, if you pay for it. Right? You're not setting any stage, or anything. You can pay for it, and be nice, and it's not a big event.

Tim Ferriss: What – if those – some people listening to this will certainly, of the male variety, but not definitely. Hello, ladies. I know you're listening, too, but just try to go out and hit on guys for a day, and you will see how brutal that side of the game is. It's fucking terrible. Let's just assume that there are guys listening to this, maybe women, could be either, and they're saying you know, I need a Samy. I need someone to help me automate this to swipe right on all these profiles to automatically like all these people, to simplify this process, because dating online seems to be a high volume low yield proposition. I want to stack the deck. How would they find someone to help? What would they look for, ask for?

Samy Kamkar: Sure. Sure. I mean I don't know of anybody, because I haven't used any, but I would look specifically for dating services that use analytics. If you like to play with this kind of stuff, if you like to be analytical, or if you like to see how you can stack the deck yourself, think playing cards is interesting, use existing dating

services like Ok Cupid, or Match, and pay for their additional software, their upgrades.

[Crosstalk]

Tim Ferriss: Their premium services.

Samy Kamkar: Their premium services.

Tim Ferriss: Now, if you wanted to find, say, a freelancer, a programmer, what are the qualifications that someone would look for, if you're like okay, I want you to write a script to say, hypothetically, if I live in Chicago, I want to auto like everyone in Chicago who fits the following specifications, but I don't know how to do that, because I'm not a techy. Who would I look to hire? Like if I went to E-lance, or one of these sites, what would my sort of project requests look like?

Samy Kamkar: Okay. I mean there's two things I'll say to that. The first thing I would get quickly out of the way, you – it's – that always seems like the best idea, and that's what I want to do. I want to get as many people. I want to cast the widest net as possible, and until you do it, you think it's a great idea, and I would tell you not to, but you're going to, so do it. Learn that you're then spending all your time with people you don't care about.

Tim Ferriss: Right.

Samy Kamkar: So then, you actually have to spend time filtering, and I spent the next half of my – that time filtering, but to answer your question, because I understand like if someone told me not to, I still would, so to get that need out, you have to sometimes. I would look for somebody – I'd go on E-lance. I'd go on Craigslist. I would try to find someone whose developed software, who can develop web crawlers, who can develop backend web software, and who can develop many basic analytic software. You don't need – they don't need to be a genius. This is very simple stuff that you're doing programmatically.

Tim Ferriss: Got it. If you were using – do you – I don't even – if you were on Tinder, hypothetically, or otherwise, does any of the advice change?

Samy Kamkar: You know I don't use Tinder. I'm not on Facebook, but if I were to use Tinder, what would I do? Let's see. Well, I mean I – lately, I've been playing around with computer [inaudible] algorithms, so

computer vision – what you actually see. Let's you make a computer actually see things and interpret things, but on Tinder, I mean –

[Crosstalk]

Tim Ferriss: Meaning that you could have the computer decide hot or not, for you, after putting – adding in some inputs?

Samy Kamkar: I think you could do some – I guess, yes. The answer is yes. You could do some basic things there, but I think what I'd want to do is – does Tinder have descriptions of people? I'm not sure.

Tim Ferriss: They're very short descriptions.

Samy Kamkar: Short descriptions, so the thing you want is a dataset. Right? You want to know who are the people and maybe you have – you know maybe you have girlfriends who are on Tinder. Like look them up. Look up their information. Look up anything that would help provide information to people who you think you would like to date and people who you think you'd not like to date, because you need to be able to have information on both, so you can write some sort of algorithm. Because Tinder has such little information, I would say – you know for a friend I wrote, actually, a Tinder script that would, essentially, swipe, until I saw that video, and that video was just – it was hilarious, so if you want to just swipe, you can use a record player and one of those nubs, iPhone nubs, to swipe for you, but then, after that, I believe it's chatting. Is that right?

Tim Ferriss: Yeah. It's all chatting.

Samy Kamkar: Okay, so most applications on mobile, iPhone, Android, they're actually web based, so you're actually dealing with a lot of the same web software, or web protocols, so if you wanted to automate some of that, man. I guess what I would personally do, if I were on there, I would create, or hire someone to create a bot that would swipe yes, swipe correct – yes. I want to communicate with this person, and when we were matched up, then, I would have it automatically communicate, and then, I would have it text me, and I could, probably, what I might do is actually automate a few – like have a story, or two, that I could text back to this device, wherever I was, like if I was on a date. If I were on a date, I would be able to text back and say, turn this story on and it would just communicate with someone.

Tim Ferriss: Right. Go [Inaudible] tactical.

Samy Kamkar:	Right, but you would still see the messages, so you could still actually communicate with that person live from your phone. You might not be – or I guess you could open the app, at that point, but yes. I would, again, find the same type of person; someone who can create web software, not just a website, but a web crawler. I mean that's the differentiation, someone who knows how to sort of crawl and automate. Right? Produce something that's autonomous that can communicate with this website, with this app.
Tim Ferriss:	How would you vet the people who respond, so if you go to say Craigslist, or an O desk, or an E Lance, and you put up looking for web crawler specialist for dating project, and you describe roughly what you're trying to accomplish, so you get 37 responses from people who are saying I can do this. Yeah. No problem. Is there something that you could have them do as a test to assess their competency?
Samy Kamkar:	I would ask them – I would find a website that you like, maybe a news website, or something, and I would – something that has other content on it, and I would say write me a script, or don't write me a script. You know if you can do this quickly, I will hire you. Please have it go to every news article for the last week, right? Something that has to click back. Right? And take these elements of the page, take the headline, and take the fifth word and put those in an XML document. Something that clearly is not that valuable. Make it not valuable. Right? You don't want them to work too hard. You don't want to abuse their time, and you don't want to suck value from them, right? If someone – I would not want to do free work for someone, but if it's a test that they clearly get no value out of, I'm more likely to do that, so I'd say something that you can't actually use that doesn't really benefit you.
Tim Ferriss:	Yeah. That's interesting. That's interesting, so it's not even a time issue, it's really a utility question.
Samy Kamkar:	Yeah. I feel like if someone – you know if I'm working with someone –
Tim Ferriss:	Right. If I were asking for something, gave me a real ROI, you'd be less inclined to do it, but if I'm saying hey, this is just to test your competency, you know I can't use the output.
Samy Kamkar:	Exactly. Yeah. I'm happy to demonstrate my capabilities. I'm not happy to provide free services.

Tim Ferriss: Free. Right. Value in exchange for nothing.

Samy Kamkar: Correct. Yeah.

Tim Ferriss: That's really interesting. Never thought about that before. Very cool, so two things; I think we should definitely talk about Myspace.

Samy Kamkar: Okay.

Tim Ferriss: And it looks like we've temporarily run out of wine, so I'm going to pause this for just one moment, and we shall be back. Don't go away.