

# The Tim Ferriss Show Transcripts

## Episode 45: Nick Ganju

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Tim Ferriss: Hello, ladies and gentlemen, this is Tim Ferriss again, *The Tim Ferriss Show*. For those of you who are new to the show, this is where I try to dissect excellence, whether that is a billionaire investor, a chess prodigy, an entrepreneur, or otherwise. How do they do what they do? What are the tools and tricks and tactics they use that you can use as well?

In this episode, I try to dissect the mind of Nick Ganju, who I've known for a very, very long time, since graduating from college, basically. He is the CTO of ZocDoc and has raised more than \$95 million in venture capital as of June 2003 or so, and they have more than six million users per month. Although Nick would hate for me to describe it this way, imagine OpenTable for doctors, although it fixes much more than that, many other broken aspects of quality health care.

In this episode, we geek out on math, which I am phobic of. I've had a lifetime fear of mathematics. So we geek out on how to tackle numeracy, if you're not comfortable with math, poker, Ping-Pong, how to write a hit song and the philosophical implications of *Monsters, Inc.* one of my favorite movies, certainly, among many other things.

It is not too dense. That's the whole idea, to try to demystify and disarm things that are intimidating. Nick has an incredible capacity for simplifying what appears to be the very, very difficult. I had a blast with this. I hope you do as well. Please meet Nick Ganju.

Tim Ferriss: Hello, everybody, this is Tim Ferriss. Welcome to another episode and edition of *The Tim Ferriss Show*. Today is a rare treat, because I have an old friend of mine who has all sorts of dirt on me and knows all of the skeletons in the closet, Nick Ganju. Nick, how are you?

Nick Ganju: I'm great. How are you doing?

Tim Ferriss: I'm doing very well. You're in New York City at the moment?

Nick Ganju: Yeah, that's right. I'm in Manhattan.

Tim Ferriss: The beginning, I suppose, goes back some ways. We initially met in 2000, is that right?

- Nick Ganju: Yeah, I think so. You were looking for an apartment, and I had an extra bedroom I was renting out.
- Tim Ferriss: If I remember correctly, I didn't make the cut. This was at the height of the dot-com boom. It was right at the top of the roller coaster in a lot of ways, and housing was next to impossible, not unlike what it's like right now. It must have been Craigslist casual encounters... I'm kidding. The rental section. We met up and didn't end up becoming roommates but ended up becoming friends and playing a lot of pool. It was amusing to me to read your official bio for the first time yesterday to try to get some additional context. You ended up being the Bay Area billiards champion. Is this right?
- Nick Ganju: Yeah, it was one of those leagues you join, and I ended up being the champion that year. I played a lot of pool in college, and since we were both just out of college I had still retained all that skill. If you played me right now, I'd probably be really rusty.
- Tim Ferriss: We're going to dig into some of the other varied, eclectic, sort of Dos Equis skills you seem to have, like table tennis, and sort of deconstruct why that is, and also get into the music, but for those people who aren't familiar with you... We can certainly get into the professional stuff, but where did you grow up? What did your parents do? Maybe you can give us some background.
- Nick Ganju: Sure, sure. I grew up in the west suburbs of Chicago. My parents were both doctors, so nice comfortable upbringing. I was very fortunate in that way. I went to undergrad, majored in computer science, finished in 1998. I worked in Austin, Texas, at a company called Trilogy for a year, but then decided the dot-com boom of the time was way too hot for me to be working at a larger company, so like all the gold hunters of history, I moved out west to California for the gold rush of 1999, I guess you could call it, and tried my luck at a couple start-ups there.
- Tim Ferriss: You ended up then, bringing us to the current day, cofounding ZocDoc. What is the current state of ZocDoc? How many employees do you have? Maybe you can give us some stats.
- Nick Ganju: Yeah, sure. We are currently about 500 to 600 employees, and over 6 million people visit ZocDoc each month to search for a doctor. To give a little background, ZocDoc is a site where you can come and search for a doctor, and you can see reviews, you can see photos, and you can book an appointment right online. In the way you can book everything else online these days, we're trying to bring doctor appointment booking online.
- Tim Ferriss: Now for those people who haven't used the site, would it be fair, as an imperfect analogy, to say it's a more refined OpenTable, plus a bunch of other extra benefits for doctors, that it has that sort of ease of use or more?

Nick Ganju: Yeah, certainly it has that OpenTable aspect, where you can book appointments online. Of course, it also has the Yelp aspect, where you can see reviews and photos, and you can also now check in, which means you can fill out your medical history forms online before you get to the doctor's office so that medical form is now prefilled, and as you visit subsequent doctors you don't have to refill the medical form. So we're slowly adding more and more features that make that process as painless as possible.

Tim Ferriss: One of the topics I wanted to talk about comes to mind when I call to my memory the first visit to the ZocDoc offices. We've spent a lot of time together. We've had plenty of work together, played a lot of pool together, and I've always been fascinated by your ability to not just test assumptions but also cut through a lot of the fuzzy thinking to hard numbers and analytics. The displays you had at ZocDoc, the real-time displays of numbers and metrics, I think were a great external representation for me of your mind.

Many people probably do not know that one of the reasons I chose to go to Princeton undergrad, which, by the way, for those people who are listening who might be applying to colleges, I was told by my guidance counselor I would not get into. Talk about encouragement. I think this is actually going to be relevant to our conversation later. You have to look at incentives, because economics ultimately is the study of incentives and how people respond to them.

What guidance counselors, even at very good schools, want to be able to say is, "Ninety percent of my students got into their first choice." The easiest way to do that is to make sure their first choices are mediocre. But one of the draws for Princeton was it was one of the few schools in the top group I was considering that did not have a math requirement.

I had a horrible experience in tenth grade with a math teacher. This might seem strange to folks, but she was a female math teacher who I think had just been really put through the wringer to get to where she was, and she was really, really belligerent toward a handful of boys in the class. It turned me off to math completely from that point forward. In contrast, my brother had the exact opposite experience in tenth grade, had a wonderful teacher, and he went on to major in math and pursue a PhD in statistics.

So I'd be curious to hear the origins of your interest in computer science and also your general thinking on these types of skills. I know that's broad, but a lot of people, like myself, fear that it's something innate. It's completely innate. You either have it or you don't. So maybe you could sort of rewind the clock and talk about your experience with getting comfortable with this type of thing.

Nick Ganju: Yeah, sure. In terms of the computer science, I started the way many computer nerds start, which is I started programming at an early age, like 9 or 10 years

old, on my Apple IIc and just trying to make games. You know, we had the Atari 2600, and I had some simple games on my Apple, and I was like, "I want to try to do this." So I bought a book on BASIC programming and tried to make a couple of games.

I tried to reproduce the game from *WarGames* with Matt Broderick. I tried to reconstruct that game. The game in that movie is called Global Thermonuclear War, so it's a pretty violent game. I tried to recreate it with my 9-year-old brain, trying to deconstruct where to deploy nuclear missiles. I was actually working on it at school in grade school, and my principal walked into the computer lab, and I got into big trouble because I was making a game called Global Thermonuclear War in fourth grade.

But that was the genesis of my interest. Then in high school we had these programmable calculators, and I started writing games on the calculator and giving it to all my friends. In the way that misguided nerds are, at age 15 I thought I would get a lot of girls this way. It turns out that writing Tetris on your calculator does not actually win you the cheerleaders, but that was my best strategy at that time. Suffice it to say, I was single for high school.

My guidance counselor saw these kinds of things too and recommended to me that I go and major in computer engineering or computer science. That was something that was not even really apparent to me, that that was a whole major and stuff. Of course, this was in the 90s and you couldn't just Google things.

So it was almost like a revelation to me that you could go and do this as a profession and there's actually formal training, like you can actually go to a four-year college and get a computer science degree. So that was great. I went to University of Illinois, which is sort of a top-five computer science school. It kind of flirts in and out of there. Some years it's number four and some years it's number seven or whatever.

Tim Ferriss: Didn't Marc Andreessen develop Mosaic there?

Nick Ganju: Yeah, Andreessen is from there. Max Levchin from PayPal is from there. A bunch of illustrious current Silicon Valley moguls are from there, so it's a good school. I certainly really fell in love with computer science when I did those four years and knew that's what I wanted to do as a profession.

Tim Ferriss: What made you fall in love with it there, and what do you think makes it a top-five program, aside from maybe the selection bias and having really good applicants over time start to select it?

Nick Ganju: Yeah, and certainly every school has that sort of self-fulfilling prophecy. You gain traction, and all the best kids want to go to your school. But I think they are very vigilant about keeping the computer science curriculum current. I had a

couple of friends who had gone to different schools at that time and also majored in computer science.

I was learning Java at the time, which was the hot new thing. This was like 1996 or something. We already had courses in Java, and my friends were still learning stuff in C. I think the best schools are very diligent about keeping the curriculum up to date, especially in computer science. As we all know, the industry and the technologies change so quickly.

Tim Ferriss: In a world where that's changing so quickly... I think this is part of what's so intimidating to a lot of folks, whether they're just trying to get by and want to be employable or they are hoping to invest in technology companies, which is a very dangerous game to play for a lot of reasons. How much past a certain point...

For instance, it's easy for me to look at learning natural languages, which I assumed I was bad at learning up until 15 or 16, and I can destroy a lot of myths and old wives' tales about that. When someone says to me, "I'm too old to learn a language. It would take me my entire lifetime. It takes decades to become fluent, blah, blah, blah," I can very easily dismantle those and get people excited about learning a language, even if they're 30 or 40 or whatever it might be.

With computer science and math, I have a lot of insecurities. I can do very basic stuff, but never to calculus. I got up to pre-cal. How coachable are these things, and how valuable is it to try to become more comfortable with the quantified side of life at a later point? I just turned 37. It's one of these things that dogs me as an insecurity, much in the way that not being able to swim dogged me until I was 30. Maybe you could comment on that.

Nick Ganju: Sure. I think there are certain fields of math that are extremely important and become more and more relevant every day, like the big data... I hate to use buzzwords, but that sort of trend that has come into favor in the last few years, which is a very real thing, despite the buzzwords. There's a lot of information to be gleaned and improvements in our society to be had from statistical analysis.

So probability and statistics are things that are just going to become bigger and bigger parts of our world. In terms of calculus, if anything, calculus is sort of diminishing, because that field of math was more applicable when you didn't have a giant computer on every desktop (*giant* in terms of processing power) to crunch the crap out of numbers.

A lot of things that were closed-form solutions, which means they got solved through these complex equations that you see with a lot of weird symbols in them, now computers can brute force crank out the answers to them, and in a better way too, because you can more closely mirror reality with a computer than you can with a closed-form solution like a calculus equation. So it's not a

big deal if most people don't know calculus, but there are fields of math which are certainly helpful in understanding.

Tim Ferriss: What would those areas be? I suppose just to jump right into it, if you were... This conversation is inspired, for those people listening, partially because we sat down at the ZocDoc offices to talk about encryption. I remember I had become really fascinated by encryption and ciphers and code-breaking because of a science fiction book called *Cryptonomicon*.

So we started talking about encryption, and you got up and walked me through the basic principles of encryption as it applies in a lot of computer science. Then we went out to dinner that night and sat down with a bunch of really impressive CTOs and guys who have been VPs of engineering, and we talked about encryption, and it just blew my mind that something I felt so utterly out of my depth with a few hours earlier I was able to actually cogently listen to discourse about in a few hours.

That really encouraged me, but it has been hard for me to determine how I walk out... I know you're a good friend of mine, but you're also busy, so it's like I don't want you to be my pro bono mental model mentor. So how should somebody in a fun or interesting way develop some of these skills? This is such a simple thing, but it kind of blew my mind. If we look at probabilities, humans are so bad, sort of intrinsically it seems, at working with probabilities.

If you have a big party and people bump into each other and they have the same birthday date, they're sort of astonished. They're like, "Oh my god, what are the chances? It's like one in a million." I'm just looking at the description on Wikipedia of the birthday problem or the birthday paradox. The probability obviously reaches 100 when the number of people reaches 367, because we extrapolate from 365 days of the year, but you get to 50 percent probability with just 23 people. It's so hard for people to grasp that.

Nick Ganju: Well, let me refine it a little bit. To state it really precisely, it's not that one of those 23 people could go and ask the other 22 and odds are would find the same birthday. It's that *any* two of those 23 people have the same birthday. Does that make sense? It's a little bit different. I think that's where the misconception comes in. You know, you can kind of take from it, "Wow, if I walked around and asked 22 people, there's a 50 percent chance I'd have the same birthday as one of them," which is not the right way to think about it.

Tim Ferriss: Right, and the devil is in the details with those subtleties. I mean, massive miscalculations, even by very smart experienced people... You look at something like long-term capital management. They build this massively sophisticated system that doesn't take into account that somebody else could have a similar machine that would then trigger this crazy back and forth that would end in catastrophe.

So if somebody feels, as I do, that they want to be more comfortable with this type of thing but they're not, are there any particular approaches or books or anything like that that you would recommend?

Nick Ganju: I think people get intimidated because they look online... Wikipedia especially does this. You go and you're like, "What is expected value?" or something, and Wikipedia immediately gives you these Greek symbols. Everyone has seen that, right? Like the first paragraph...

Tim Ferriss: It's in the first line of the birthday problem.

Nick Ganju: Yeah, exactly. That even intimidates me, and I think I know a fair bit about math. You know, the best way to do it is to start really simple, and then work your way up slowly. When you want to talk about probability... Let's play a game where we roll a six-sided die. If the number is 6, I pay you a dollar. If the number is 1-5, you pay me a dollar. Would you play that game?

Tim Ferriss: No, I would not play that game.

Nick Ganju: Right. You wouldn't play that game. It's intuition. Now let's change the game and say that if a 6 comes up I pay you \$1,000, and if 1-5 each comes up you have to pay me \$1.

Tim Ferriss: Yes, I'll play that game.

Nick Ganju: So you'll play that game. Now the question is...*At what point should you play or not play it?* Would you play it at \$3? If I paid you \$3 when a 6 showed up, would you play *that* game?

Tim Ferriss: Probably not. I have to start doing calculations here.

Nick Ganju: Sure, but that's the genesis of it, right? The genesis of all math is you starting from these common sense or these real-world problems and saying, "Okay, well, how do I understand this problem?" My intuition says I wouldn't play it if I only won \$1 when I hit 6 and I *would* play it if I won \$1,000 when I played 6. Would I do it at \$10? Would I do it at \$3? So start from there.

We can walk through this problem. A simple way to think about this problem is let's assume in six rolls you get one of each. Let's say we roll it six times and you get one 1, one 2, one 3, one 4, one 5, and one 6. So for the \$3, you would lose \$5 for each 1-5, and then you would win \$3 when you rolled a 6, so you would make \$3 and lose \$5, so you'd be at negative \$2.

You can start to see at which point you would break even, which is \$5. At \$5 you would break even exactly. If I paid you \$5 every time a 6 showed up, you

would lose \$5 for each of the other rolls, and then you would win \$5 when you got the 6.

Tim Ferriss: I'm tracking you so far. I'm not as dumb as I look. Actually I'm a bit dumber than I look, but that's a different story.

Nick Ganju: But that's the genesis of it, right? So now let's roll two dice. What are the odds of getting two 6s? Each die has a one-in-six chance of getting a 6. You multiply those together, and the odds of getting two 6s are one in thirty-six. So now you can do the game again. How much should I pay you if you get two 6s? It just goes from there. It just gets more and more complex.

Blackjack is just more of the same thing. It's just a more complex version of the same thing. So if you start simple and understand the conceptual underpinnings, and then work your way up from there... I think every field of math can be broken down that way, if you just start simple and not get intimidated by all these Greek symbols.

Tim Ferriss: Now one of the things that sparked my interest in exploring some of this was my experience in television. I was filming *The Tim Ferriss Experiment*, the future of which is TBD, for those people listening and wondering. The entire division at Turner that produced it was fired, basically shut down, and it's sitting on a shelf, so I've been battling to try to rescue that for months. Suffice it to say, keep an eye out. I may need some public support to get that done.

The episodes included, at one point, going to Vegas and being trained by a really fascinating guy named Phil Gordon, who has a CS background, who has taken home millions of dollars in winnings as a professional poker player. He had a week to train me to go heads up, one-on-one against professional poker players. So you can imagine that week was a lot of this type of conversation.

He would ask me these very, very basic probability questions, and I would have this stoned Labrador retriever response with no words coming out of my face, and he'd be like, "You're kidding me, right?" But it worked up to the point where he was able to give me matrices for deciding in a very binary way, "Do you fold or do you raise?" I started memorizing these sets of rules, and it made it fun. It gave it a context so that I wasn't grappling with some of these questions in a vacuum.

I know one of the books you recommended to me was *How to Measure Anything*. Some of it I found very interesting. Of course, when we were not too long ago hanging out at the pool and brainstorming stuff like this and talking about investing, you were able to throw an extra element into the conversation, which was if you have a 30-percent probability of doing *X* or a 70-percent probability of doing *Y*... If the person giving you that information only tells the truth 60 percent of the time, then what? How does that affect the outcomes?



Are there any other books or even just games or methods for making this a fun process for people? Because the idea that I could spend a week learning poker and be able to play, without getting my total face ripped off, with probably 70 percent of the recreational players out there pretty easily is a huge ROI, right? That's massive. What else comes to mind? What other books or resources would you recommend to people?

Nick Ganju: Yeah, I love poker as well. I think poker is a great example of a combination of math and emotional intelligence also coming into play. Poker is a great reflection of all the stuff we've been talking about. I recently read a great book, which is called *How Not to Be Wrong: The Power of Mathematical Thinking*. This book by a guy named Jordan Ellenberg is exactly what we're talking about.

It's written for an audience of people who have historically been intimidated by math or just thought, "Gee, I'm not good at math" and introduces things in a very simple way, and then works up to more complex concepts, in the way we just broke down probability with this dice game. So that's a great book, and I hope it does well, and I hope it alleviates some of that intimidation people have.

Tim Ferriss: I know we also chatted at one point about your classes. There might be a better term for them, but internally at ZocDoc, trying to help poor liberal arts majors like me become better at goal setting and things along those lines. I know you're a fan of what is often referred to as *SMART goals*. Would you mind talking about how you set goals or how you suggest people set goals and common mistakes people make?

Nick Ganju: Yeah, sure. *SMART goals* means *specific, measurable, attainable, realistic, and timely*. It's sort of a framework to help you pick goals that you can objectively hit or miss. *Measurable* means I'm going to lose exactly 10 pounds or at least 10 pounds in the next two months or three months, and then you can objectively decide at the end whether or not you've lost 10 pounds, as opposed to saying, "I'm just going to lose weight," and then you don't really know what kind of goal...

It doesn't work psychologically. You're just like, "Oh, I'm vaguely losing weight." Writing down that goal and literally putting it on your wall actually gives you something to strive toward. So the first problem is just setting objective goals. Instead of saying, "Let's try to accomplish *X*; let's try to get more people using ZocDoc," as opposed to "Let's get 10 million more people to use ZocDoc..." They're different goals, psychologically speaking. Then at review time it's easy to see whether you did it or not.

Then the next problem after that is that people say, "Yeah, that sounds like a good number. Let's get a million more people to use it," or whatever, but there's no basis in how they're going to get to that million. The analogy I like to use is

when they tried to put the first man in space or the first man on the moon, they didn't just say, "Okay, let's get in the rocket and burn the rocket as hard as we can, and maybe we'll get into space." They did all the math behind it.

They were like, "Gravity pulls us *this* much, and we have to take *this* much weight up, so then we lose *this* much fuel, but this much fuel then adds *this* much weight to the rocket, so that causes its own set of problems. Then there's wind resistance and everything." They did all the math to figure out how to get themselves into space, but I feel like in business and in life people just say, "I'm going to add this much" or "I'm going to create *X* percent more of whatever is going to happen," and they haven't really done the underlying math.

Tim Ferriss: Yeah, I think I'm guilty of that too, because you're constantly told as a non-quant-comfortable person, "You have to think big," and people are like, "Okay, great. I'm going to build a billion-dollar company."

Nick Ganju: That's a good example. If you want to build a billion-dollar company, what do you need to do? What kind of revenue or earnings do you need to justify being a billion dollars, and then what sort of markets or opportunities are available that would create that much earnings, and then how are you going to get there? You can't just say, "Let's just build a billion-dollar company." I mean, it's good to have that goal, but then you need a plan to execute as well.

One of the big improvements we've done operationally is what I call *business cases*, and it's the math of how you're going to get there. The example I use, which is just a fun example, is *Monsters, Inc.* Monsters is a recurring theme at ZocDoc. Like the monsters from *Monsters, Inc.*, Sulley and Mike Wazowski... Any team member who crushes it that week, we give them one of the stuffed animals, and they're the monster of the week and stuff, so it's this sort of recurring theme.

My example I used was they have these doors to children's bedrooms, and they used to scare them, but now they make them laugh, and that generates electricity for the city they live in, Monstropolis. Let's say one day they're short on electricity, so the CEO of Monsters Inc. is like, "Let's generate more electricity." A bad way to do it would be, "Let's just try to generate more." A good way to do it would be like, "Let's generate one gigawatt more." Then it's like, "Okay one gigawatt. Great. How do we get there?"

Well, okay, each door you manufacture to a new child's bedroom generates 1 megawatt, so you need to generate 1,000 more doors. You need to manufacture 1,000 more doors to get this 1 gigawatt. So how do you make 1,000 more doors? Well, you need 100 door manufacturers who each make 10. You try to do that, but then you realize there's like a 10-percent defect rate.

It's sort of building up from there and understanding the math behind it, and then understanding if that's realistic. Can I have 100 door makers? Is it realistic to hire that many that quickly in one month? Really breaking down the plan and multiplying these numbers through to get to the goal is really the difference between success and failure.

It's not complicated math. It's just, "I need 1,000 doors, so I need 100 door manufacturers who can each make 10 doors in a month, and then I'll have 1,000 doors." None of it's calculus or any of this other stuff, but it is rigorous in terms of you have to be able to... When you break it down to the individual components, those have to be executable. Can I actually get 100 door makers, and does each of them actually make 10 doors a month? Etcetera.

Tim Ferriss: How do you then translate that to, say, weekly or monthly check-ins? How do people who do this case study, who have set a quantifiable, objectively measurable goal, then ensure that they are on track or at least check in to see if they're on track or not? How frequently is that done, and how do people improve the odds of hitting those goals once they've set it down on paper and have accepted and agreed that, "Yes, we need to understand the different numbers that underpin this goal and the assumptions we're making"? How do you encourage them to keep on track? How often are they checking in or having someone else check in on them? How does that work?

Nick Ganju: The goals are set quarterly. So every three months they set this goal. Going back to this *Monsters Inc.* example, a three-month goal would be, "We're going to generate one extra gigawatt of power." Then each week they're going to follow the numbers that were the breakdown of this plan. So they ask how many door manufacturers they actually hired this week and how many doors they actually manufactured this week.

Then you start to get confidence around those numbers. You start to see, "Oh crap, I can't hire 100 door makers in a month. It's actually going to take me two or three months to hire 100, but I can hire 30 in the first month, and they're each going to contribute 10 doors, so I'll at least have 300 doors in the first month." And you learn something new. You learn that, "Oh, 10 percent of the doors are defective, so it's actually not 300 doors generated in the first month; it's 270 doors generated in the first month."

So then you add a new line in your business case here that is going to subtract 10 percent from your finished product of doors. Over time, you generate a really solid understanding of that game, of whichever initiative it is you're planning, as you add lines and as you refine the numbers for each line. So basically you start to fill in the actuals, and you look at their deviation from your projections when you started.

Tim Ferriss: Yeah, from your base assumptions, which is something I'm constantly astonished... I do this in a very Fred Flintstone, knuckle-dragging kind of way, but if I look at just as a group, for instance, angel investors or people who are doing early-stage investments... They form a thesis. They go out and raise a bunch of money, and then they never modify.

It's kind of like the parody of George W. Bush that Stephen Colbert did at one point. He gave an address at like the Republican National Convention or something. This is a paraphrase, obviously, but he was like, "I stand behind a president who no matter what happens on Wednesday, he still holds the same belief on Thursday that he did on Tuesday."

Nick Ganju: Yeah, he was making fun of... Because they branded John Kerry as a flip-flopper. That's what it was. It's sort of the mark of intelligence to learn from your mistakes and change your attitudes of things. So Colbert was ribbing Bush for branding Kerry as a flip-flopper.

Tim Ferriss: Yeah, I'm not sure that worked out exactly as they expected. So when you were a kid... Actually, before I go there, do you have all of your employees trained on Excel? Is that what that means, when they're inputting these values so things automatically update?

Nick Ganju: Yeah, this is done in Excel. Each column is a month, so you can see time progressing going to the right, and then each row will be one of these things. Like with Monsters Inc., it's "How many door manufacturers do I have? How many do they make in a month? What's the defect rate?" Etcetera. Then, as a month turns into reality, you overwrite the projected assumptions with the actuals.

What I'm saying sounds really simple, but people don't do it in general in a lot of companies I've visited or, like you said, smaller start-ups I help out with in an advisory role. They just don't do these things. If you think about the number of projects that fail in business and the amount of research or forethought that goes into them, in general, that's way, way off.

To go back to probability, even if you think there's a 90-percent chance of something succeeding and a 10-percent chance of failing, then it's worth it to spend 10 percent of the time ahead of time to see if it's going to work. What that means is if you're starting a 10-week project, you spend a week to research it. People don't do that. People spend two hours thinking about it, and they go, "That would be a great idea." Then they hop off and do it for 10 weeks.

Tim Ferriss: To put that into perspective, that means if it's a 10-year project, you could justify a year in doing due diligence, which is totally entirely not the case, obviously, in the vast majority of instances.

Nick Ganju: Or budget. If it's a \$100 million project, you should spend \$10 million just researching it if you think there's a 10-percent chance it's going to fail. More than 10 percent of projects actually fail. So if you think there's a 25-percent chance that it fails, you spend \$25 million researching a \$100 million project. This is assuming the research project is going to take this positive success to 100 percent.

You know, it's not a perfect world and nobody knows these exact numbers, but certainly the amount of forethought or research that's done in general is way, way under what even a ballpark estimate would say the amount of forethought should go into it.

Tim Ferriss: Do you hire people who have preexisting Excel experience? I do not, for instance. I can read an Excel document, but if I have to create macros and so on, I couldn't create an Excel spreadsheet that functions to save my life. How do you train someone? Do you do it all internally or do you have a certain course you recommend, anything like that?

Nick Ganju: Yeah, we do it all internally. Again, macros are way, way ahead of anything we're doing. Just getting a standard Excel sheet working, you know, 10 rows and 10 columns, is fine, and you can build up from there as you learn more and as you get more comfortable. This is going back to attitude again, saying, "I can't do macros, and I can't do VLookups, and I can't do pivot tables," but basic Excel is none of that.

Basic Excel is just that. I have 100 door manufacturers, and I'm making 10 doors. You multiply those two cells together and get 1,000. That's how you should start. Let's start with just the one row of "I'm going to make 1,000 doors." It's just literally one cell that says "1,000." Then you ask, "Okay, what's the math behind that?"

Then you say, "Okay, well, I need 100 manufacturers who are each going to make 10 doors." So you make two new cells, and you put "100" in one cell and "10" in the other cell, and then the third cell that used to just say "1,000" you change to be the product of those other two cells. So you say that third cell equals the first cell times the second cell. Now if you change the number of door manufacturers you have, the "1,000" will automatically shift.

Then you say, "Okay, why do I have this many door manufacturers? Why do I think I have 100 door manufacturers?" And it's like, "Oh, because I'm going to hire 50 this month and 50 next month." So now that "100," instead of just being 100, is the sum of two other cells that each say "50." So you just work backwards from there.

You just take each cell and break it down into its subcomponents, and pretty soon you have a working Excel document. It doesn't need to be more complex

than that. That's a great start. You'll do that for a while, and then you'll be comfortable with that, and then you'll be like, "What is this pivot table nonsense everyone is talking about, and is it actually useful?" Then you'll go into pivot tables.

But nobody in the history of Excel, no matter what kind of computer genius they were, started day one and was like, "How do I make macros work?" or "How do I make pivot tables work?" They all started this way. That's like the big secret of mathematicians in general. Everybody started from " $1 + 1 = 2$ " and built their way up. Each step is not a big step once you understand the previous step.

Tim Ferriss: Yeah, there's a gentleman by the name of Keith Devlin out of Stanford who's very good at speaking to this topic. I always find myself nodding and agreeing with him after every essay I read or interview I hear, and then once I look at the possibility of delving into numbers I get cold sweats, which I need to get over. Let me change gears just a little bit and sort of fill in the picture of who Nick Ganju is. First, do you have a favorite book or a book you've given most as a gift?

Nick Ganju: Yeah, it depends on which context.

Tim Ferriss: You could give a couple.

Nick Ganju: Sure. For my software engineers, I love a book called *Don't Make Me Think*, which is a book about usability and making software and user interfaces that are friendly to people. Often you see these software engineers where they kind of scoff... Everyone has encountered this guy. It's an IT guy or software engineer who scoffs at the novice user.

They say, "Ha-ha, this guy doesn't know how to use this thing. This guy doesn't know how to use Photoshop; he's so dumb," or "He doesn't know how to connect his computer to the network; he's so dumb." That attitude is something that needs to vanish. If you look at successful companies like Apple, where things just work, none of the engineers have that attitude.

A bad software company has the attitude of, "If somebody doesn't know how to use something, it's their fault because that user is dumb." A good software company has the attitude of, "If they don't know how to use something, it's our fault because we did not make the software intuitive enough, and we didn't make it simple enough for people to use."

Apple is a shining example of that, where they really go out of their way and do extra work... The engineers do immense amounts of extra work to make it easy and simple for the user, and they're rewarded in the market. The book I love, which helps reinforce that user-friendly culture here at ZocDoc, is a book called

*Don't Make Me Think*, which is a book on usability. It's sort of a simple book. It's like 100 to 150 pages with a lot of illustrations about good user interfaces and bad user interfaces.

It's an easy read, but it is a treatise on why we should make usable interfaces. Not just how we should make them, like what sort of user interface patterns work or don't work, but also why we should do that, and this is the reason. Think about ZocDoc. People discovering us for the first time go to the home page, and if it's complicated they're just going to leave. If it's simple, they're going to stay and book an appointment.

It's all very well and nice of us to scoff about "Ha-ha, that user didn't know how to use our home page," and we can be haughty and scoff about it, but we just didn't get that appointment. It's our job to get people to book appointments. There's no room for being haughty about that. We need to make it accessible to everybody.

Tim Ferriss: As a side note, just to choose something people are also often afraid of, learning languages... One of the best language teachers I've ever encountered... His name is Michel Thomas, an amazing guy. If you can get the original recordings of the classes he did, they're just amazing. What he would say to the students right off the bat was, "Don't worry. Don't be nervous. Don't try hard, because if you don't learn it's my fault, not yours. It's the job of the teacher to make sure you learn."

So he sort of took the exact same approach with language learning and unburdened the student to make it the responsibility of the teacher to make it easy, which I think is partially why he was so spectacularly successful. It just goes to show. He could get people up to basic speaking in all the romance languages in about eight hours of class time. It was really amazing. So what other books outside of *Don't Make Me Think* do you give most as a gift or recommend most?

Nick Ganju: Then *How to Measure Anything*, which is what we talked about before, which is about being outcome-based and getting these measurable outcomes, saying, "I'm going to lose 10 pounds," as opposed to just saying, "Oh, I'm going to try to lose weight." This is a great book, because people often complain that they can't measure something. Like, "How many people like our site? Do people really like our website? How do you measure that?"

Well, it's measurable. You can do a survey. You can ask people. You can just look at conversion rates, how many people actually do something on your website as opposed to just look at it and run away. So this book I found is quite informative on how to think about measuring things you might have thought were intangible historically.

It also goes into these ideas about why it's valuable to measure something, going back to what I was saying about if there's a 10-percent chance of something failing, then you should spend 10 percent of your time before doing it deciding if it's going to fail or not. Really getting that discipline about doing enough forethought and reflection up front is another big theme of this book.

Tim Ferriss: I thought the confidence interval aspect was really fascinating as well, not something I've thought enough about. If you're 90 percent confident that something is going to happen or that something is correct, what does that actually mean? People throw that around. "How certain are you?" "I'm 75 percent certain." How should that be reflected in your actions and preparation and so on? I thought it was really fascinating. What is your favorite documentary or movie? These don't have to be highbrow. It could be *Legally Blonde*.

Nick Ganju: Oh, I don't know. I really like *Forrest Gump* a lot. That's a common one or a cheesy one.

Tim Ferriss: What do you like about it?

Nick Ganju: Well, it's sort of obvious symbolism, but in the beginning there's a feather floating around, and at the end there's a feather floating around, and he kind of floats around. There's a football field, and he runs through it because he's fleeing from something, and he runs faster than everybody, so then they're like, "Oh my god, we have to get that guy to play football."

Then he plays football, and then he goes to college because he plays football. At the end of college, some army recruiter hands him a flyer at random and says, "You should join the army," and he's like, "Okay, I'll join the army." So he's just kind of floating around on the wind there, and I think it's a good lesson, where you don't take yourself too seriously.

Things are going to happen, and the more you stress out about, "Life is not going exactly the way I planned," the more unhappy you're going to make yourself, which is not to say you shouldn't try to do things. You should certainly try to shape your life and all this, but don't take it too seriously or don't stress out too much when things don't go exactly how you planned.

Tim Ferriss: I would love to hear maybe a concrete example from your life, because from all outward indications, you've done exceptionally well with ZocDoc and elsewhere. How do you choose how much to plan versus allow to bend to serendipity? Because you do a bunch of other things we haven't gotten into yet. The music you take very seriously. We're going to talk about Ping-Pong, now that you mention *Forrest Gump*. Let's use Ping-Pong as an example. Maybe you can explain the Ping-Pong phenomenon, your experience with Ping-Pong.



Nick Ganju: Sure. This goes back to what you were saying about older people wanting to learn something. I play guitar, and people say, "I wish I had started guitar when I was a kid so I could play," and I say, "Well, I started it when I was 28." Still young, but I wasn't like a 10-year-old. Ping-Pong I learned when I was 36, and I'm 38 now.

It's another interesting thing. I think people limit themselves as to what they think they can learn, or it's almost like an excuse to not have to try to learn something. "Oh, I'm 36. I can't learn Ping-Pong now. I'm too old." It's easy to not try to double down and actually learn something, because you can just cast it off and say, "Oh, I'm too old to learn new things."

The story of the Ping-Pong was that we purchased two or three Ping-Pong tables for my office two years ago, and I was the worst player. I had played like five times in my whole life, and I was the worst player out of everybody. Everybody was laughing, and they were like, "Ha-ha," because it's always fun to screw with the boss. "The boss sucks at Ping-Pong. Ha-ha, we're all beating the boss at Ping-Pong." So I got motivated. Let's say I got motivated.

Tim Ferriss: That's a good adjective.

Nick Ganju: I threw down the gauntlet, and I said, "Okay, I'm going to beat everybody at this company in 30 days."

Tim Ferriss: Okay, so you proclaimed this.

Nick Ganju: I proclaimed it out loud, and I Photoshopped... I don't know if you remember that movie *Highlander*.

Tim Ferriss: Of course. "There can be only one."

Nick Ganju: There's a photo of him with the sword in the air and the lightning is striking the sword, and I replaced the sword with a Ping-Pong paddle. The lightning is striking the Ping-Pong paddle, and I wrote, "There can be only one." I practiced and practiced, and in 30 days I had beaten all but two people at the company. At the end of the bell curve there are going to be people who are exceptionally good.

Tim Ferriss: It's like Facebook in Peter Thiel's portfolio, right? There's sort of like a power law.

Nick Ganju: Yeah, exactly.

Tim Ferriss: The last two people are going to be monsters.

Nick Ganju: Yeah, but then in another 30 days I beat those two people. I said in 30 days I'd beat everybody. I beat everybody but two people in 30 days, and then in 60 days I beat everybody.

Tim Ferriss: How did you go about learning it? When you sat down and you were like, "Okay, now I run the risk of humiliating myself if I don't make this happen..." When you sat down to plan it out, how did you do it?

Nick Ganju: That's an interesting way to put it. It never occurred to me to say, "Oh, I'm humiliating myself if I didn't do this." Maybe that's illustrative of the mentality. Until you said that now, two years later, it never crossed my mind the humiliation of defeat or how humiliating that would be. It's more constructive to focus on the positive of when you're going to win and not fret about the downside.

Tim Ferriss: So when you were fantasizing about gloating over the employees in the company, how did you sit down to plan it out? What was the method? Because I actually want to get good at Ping-Pong.

Nick Ganju: The first thing and by far the most important thing was I went to the Ping-Pong parlor by my house and took lessons. I was taking lessons once a week from there, and that, of course, catapulted me in my skill level. What would happen was in the third or fourth week, one of my coworkers came into that Ping-Pong parlor and saw me taking lessons and spilled to the entire company that I had been taking lessons, which I thought was another interesting reflection on life, which is people are like, "Oh, you didn't say you were going to do *that* thing." I was like, "I didn't say what I was going to do or what I wasn't going to do."

Tim Ferriss: Other than beat all your asses.

Nick Ganju: Yeah, I said I was going to beat everybody. When we started ZocDoc, people said the same thing. There's practice management software that exists out there, and they said, "You'll never be able to integrate to these third-party practice management systems, because they're too antiquated. They're not going to release a new version, and some of the companies are not even developing those things anymore."

We just went and reverse engineered some of the existing ones by literally getting copies of the software and deconstructing the file structure and really reverse engineering it. We got it working, and all of a sudden ZocDoc started working. All this antiquated software was effectively communicating with us.

Then those naysayers were like, "Oh, you didn't say you were going to do *that*. We thought you had to strike up partnerships with all these software companies. You didn't say you were just going to get the software and reverse engineer it." It's like, "I didn't say I was or I wasn't." If you're thinking so inside the box,

when somebody thinks outside the box and gets something done, you should learn from it.

You should be like, "Oh, that's slick." You shouldn't be like, "Oh, you didn't say you were going to do *that*. That's not fair." That's another illustration of positive attitudes versus negative attitudes. So I took these Ping-Pong lessons, and then they go, "Oh, you didn't say you were going to do *that*." Then they started saying, "Only you can afford lessons." The guy who came and found me in the Ping-Pong place ran into me at the bar. There's a bar in this Ping-Pong parlor.

He said, "Yeah, not everyone can afford the lessons." I was like, "How much did you spend on these drinks?" He had bought a round of drinks for four or five of his friends, and he was like, "This is \$40." I was like, "The Ping-Pong lesson I just took is \$35, and I haven't bought any drinks, so I'm going to come out of this Ping-Pong place spending less than you have." So the first thing I did was that and started with the proper form, and then practiced a lot when people weren't around.

Tim Ferriss: How did you practice when people weren't around? I'm just going to cheat here, I guess. What are some of the most common mistakes people make playing Ping-Pong, like the "randos" who have a couple beers and grab a Ping-Pong table. When you watch it, what makes you cringe? What are you like, "Oh, if they only knew the basics, they should do this and not do that"?

Nick Ganju: Number one is the grip. A lot of people hold the Ping-Pong paddle in whatever way they're first inclined to do it. There are a couple schools of holding it, but the general way you're supposed to do it is called the handshake. You sort of extend your hand like you're about to shake somebody's hand, and then you put the handle in that way. It's sort of hard to explain in audio.

Tim Ferriss: I think I get it. So your four fingers, not your thumb, then, are extended kind of diagonally across the back, the flat portion, as opposed to the handle of one of the paddles?

Nick Ganju: Yeah, I mean you don't want to cover a large portion of the paddle with your hand, because then your backhand will... It'll hit your fingers. But that's essentially the right idea.

Tim Ferriss: Okay, people can Google it, though. The handshake.

Nick Ganju: Yeah, the handshake grip. The other thing is people don't have any conception of how big a role spin is in the game. It's a very light ball, and spin has immense effect on the ball. Your normal looping forehand is supposed to have a lot of top spin on it. Every ball should have spin on it, and depending on what you're trying to do, if you're trying to slice it, if you're trying to side spin, if you're trying to top spin...

If you're just hitting it flat, then you're forsaking an opportunity to do something tricky with it that would screw up your opponent. Learning how to hit the ball with spin is I'd say the second biggest thing.

Tim Ferriss: Cool. Do you have any morning or evening rituals? Like what does the first hour of your day look like?

Nick Ganju: That's an interesting question. I suppose I don't really have any rituals. I just get up and get ready and go to work.

Tim Ferriss: You do brush your teeth, though, every morning?

Nick Ganju: I do brush my teeth. On the days I remember I brush my teeth. No, I think I'm very fortunate in that every day has a different set of challenges. The whole company is part of the stuff I'm concerned with.

Tim Ferriss: Let me rephrase, then. I'm going to push a little. I bet you do have patterns at least, whether it's weekly or daily, and I'm just curious what of those patterns contribute to your effectiveness or just output or lower your stress. Music is part of your life, but are there things you do like one day a week or twice a week or whatever it might be that you think allow you to be a high-functioning person without having to be put in a mental institution every once in a while to de-stress.

Nick Ganju: Yeah, certainly. I've never really thought about it in those terms.

Tim Ferriss: I'm such a negative person.

Nick Ganju: No, it's like an illustration that I'm maybe not self-aware that "Today I should do something to de-stress, because my stress levels are high." There certainly are days when the stress levels are high, and I don't think I'm self-aware enough to have, "Okay, today I should meditate," or whatever. I certainly read a lot. I think I try to rid myself of cognitive biases. That's something that is an extremely nerdy thing to say.

Tim Ferriss: Yeah, could you explain to people, for those people who may not be familiar, what that means, or give an example?

Nick Ganju: There's a huge slew of what psychologists would call *cognitive biases* that humans have. What they are are things that make a human, for whatever evolutionary reason, averse to something they shouldn't be averse to or irrationally evaluate things. I'll give you an example. We can go back to gambling again. Let's use the same example. If we rolled the die and each time it was 1-5 you lost \$1 and if it was 6 you won \$10, then you would play that game, because over time you would be positive.

Tim Ferriss: Assuming I have the bank roll.

Nick Ganju: Yeah, assuming you have the bank roll. But let's say each time you rolled that die, instead of 1-5 losing \$1 and 6 gaining \$10, let's say each 1-5 you lost \$10,000, and then with a 6 you won \$100,000. Now would you play that game? It turns out that most people wouldn't play that game, even though the numbers are the same, because the fear of losing that much money is sort of insurmountable. Even though you *should* play that game. A large business *would* play that game. Even a rational actor would play that game. That's a cognitive bias called *loss aversion*. You feel more bad for losing \$100 than you feel good when you win \$100.

Tim Ferriss: Yeah, the sunk cost fallacy is a close cousin. You have people who will hold on to an investment just because it has gone down a certain amount.

Nick Ganju: Yeah, my favorite story of sunk cost is there's this tennis club where the outdoor courts are free, but the indoor courts you have to rent, and you have to rent them ahead of time. You have to rent them like three weeks ahead of time, and you have to pay like \$50 for the court for an hour or whatever. This is a real case. I forget where it was.

The outdoor courts are generally considered to be far more pleasurable, because you're outside and it's warm and sunny, and the indoor courts have uncomfortable white lights or whatever. What happens is in April it will be a beautiful sunny day, and the people will be playing on the indoor courts, and the outdoor courts are empty. You say, "Why are you playing on the indoor court? You should go play outside." They're like, "Well, we've already paid for the indoor court. We paid for it last week, so now we're going to go to the indoor court and play."

You're like, "But the outdoor court is far nicer and it's empty. Why don't you go play there?" They go, "Well, no, because we've paid for this one." It's a sunk cost fallacy, and this is a cognitive bias. You should play tennis on the most pleasurable court *then*. It doesn't matter if you paid \$50 a week ago for the less pleasurable court. If the nicer court is open right now, you should play on the nicer court.

Tim Ferriss: I should mention for folks, as imperfect as Wikipedia might be, if you search "List of cognitive biases..." Don't search "Cognitive bias." Search "List of cognitive biases." There's a long list of these types of cognitive biases, and there are also a lot of books that explore this, like *Think Twice*. There are sort of two approaches here or two ways you can minimize the damage of cognitive biases or extract value from them.

The first is correcting those cognitive biases or at least becoming aware of them.

The second is harnessing your inherent cognitive biases for something positive. For instance, there are cases where experiments have been done with, say, gym memberships. Having someone pay on a monthly basis for a gym membership is not nearly as effective as having them overpay in advance, and then giving them a refund of  $X$  amount for each  $Y$  number of times they go to the gym, and harnessing that type of prepayment and loss aversion and sunken cost to incentivize somebody to do something positive they wouldn't otherwise do.

Anyway, this is also something I like to nerd out about. What's a cognitive bias that you overcame or something that you're currently working on? Anything in particular?

Nick Ganju: Yeah, all of these things are things that are very innate in everybody, so at some point I did have sunk cost fallacy. At some point I did have loss aversion and these kinds of things. I think another big one that everyone has is *anchoring*, and I certainly had that before, which is in a negotiation when it's not clear what the price of something should be, you should just throw out a huge number.

Like if you wanted me to be your math mentor, what should an hourly rate be between you and me? I have no idea. I've never taught for a living. You and I would have no idea. So in that silent moment, when you and I are like, "What do you think the price should be?" I'm going to blurt out, "\$1,000 an hour." It's not because I think I deserve that. It's because now I've anchored the conversation.

Saying a huge number like that has destroyed your brain. So now when we settle on a final number, it's going to be much higher than it would have been otherwise. That's just a cognitive bias. Like you said, you use these to your advantage. This is a situation in which I can use that to my advantage.

Tim Ferriss: Especially because I suck at math on top of that.

Nick Ganju: If I hadn't done that, the final price might have been \$25 an hour, and since I threw out that huge number, it has screwed up your brain now, and the final price is instead going to be \$40 an hour because I've done the anchoring thing. So that's a great one. For all you listeners out there, if you're about to go into a negotiation, try this out.

It only works when there's not a preset reference point. If you're like, "I'm going to sell you my used Toyota, and how much should it be?" and a ballpark should be five grand, I can't be like, "A hundred grand." It just sounds stupid and rude. It only works when there's not a good expectation from either party.

Tim Ferriss: That is a good point, though, that negotiating is a fantastic way. That's probably the most systematic way I've tried to address my own self-defeating instincts, would be another way to look at biases. *Secrets of Power Negotiating* is a great

book. The audio is even better. *Getting Past No* I think is a fantastic book, better than *Getting to Yes*. Have you read any particular books on negotiating?

Nick Ganju: Actually, yeah. The first book that came to mind for me was *Getting to Yes*. I love *Getting to Yes*. A lot of important things people misunderstand, and I've just furthered that with the example I just said, is that not all negotiation is a zero-sum game. I think *Getting to Yes* is a great exposition of that.

Tim Ferriss: I think you'd enjoy *Getting Past No*. It was actually written after *Getting to Yes* by one of the coauthors of *Getting to Yes*. When you think of the word *successful* or hear the word *successful*, who's the first person who comes to mind and why?

Nick Ganju: I think I'd say Bill Gates. Maybe that's a cliché, obvious answer.

Tim Ferriss: It depends on the reasons you give, I guess.

Nick Ganju: He's in tech. He is/was a computer nerd. I'm a computer nerd. You know, he built an immense and one of the greatest technology companies ever, and it's something I aspire to do. Not only that, but then in the second chapter of his life he has now gone and done all this great philanthropy, and it's something I would love to follow in his footsteps on when retirement time comes for me, to go and give back and do these philanthropic efforts.

Tim Ferriss: If you were to follow Bill Gates' path in a lot of those respects that you just mentioned, what are the things about Bill Gates that if you could opt out of emulating you would opt out of?

Nick Ganju: I don't know. This is a tough one. I guess he was very rough on his own employees within Microsoft, and I think at a younger age I was also very abrupt and susceptible to bouts of anger and whatever. I think I've come a long way at this company to be a lot nicer. I had a couple of start-ups in my twenties, and I think I was very mercurial in those start-ups, but by the time I had started ZocDoc I had sort of ironed all that out, and it's much better to be a nice person when you're managing things.

Tim Ferriss: I like *mercurial*. That's a good adjective. It makes me think of a comedian named Jim Gaffigan. I think he said at some point (I'm paraphrasing), "Yeah, you know, if you're a Latin guy or woman and you're really angry, people say, 'Wow, it's just that Latin temper,'" and he's like, "But if I behave that way, people just say, 'Wow, that guy is a dick.'" But *mercurial*. I like that choice.

Nick Ganju: Yeah, it's just my Indian passion coming through.

Tim Ferriss: Right, exactly. I can't pull off Scandinavian passion. It doesn't usually get accepted. So on the flip side, what's the first face that comes to mind when you think *punchable*?

Nick Ganju: Oh, I don't know.

Tim Ferriss: Oh, come on. It doesn't have to be a real person. I'll give you an out.

Nick Ganju: I don't know. Maybe the *Jersey Shore* people, the people who are famous for being famous, not the people who have actually contributed.

Tim Ferriss: Who built stuff.

Nick Ganju: Yeah, and built stuff.

Tim Ferriss: What are the most frequently played albums or artists on your iPhone or computer?

Nick Ganju: Well, I love the Beatles a lot, and I think the more you listen to them, the more complexity and stuff you discover as you listen to their stuff over and over, which is great. A lot of pop songs are really simple, and the first time you heard it you've heard everything there is to hear. The Beatles' early stuff was like that. It was really simple and about chasing girls and stuff. Then later on they got really, really sophisticated, and there's a lot of lovely complexity to the music.

As you know, I play music myself, and I understand quite a bit about music theory. Really understanding why things sound good and why this chord sounds great here and this kind of stuff is all, once again, math. Not complicated math. It's simple math. But I love music theory, and those guys were the kings of that.

Tim Ferriss: What would be two or three tracks that you would suggest people listen to to explore that?

Nick Ganju: I like "Across the Universe" a lot. Once you understand music theory, you can even see which ones were written by whom. Like Paul McCartney always puts the four minor in his songs. That's a music theory term. He's a big fan of putting the four minor in his writing, so when you hear a four minor come up, you're like, "I bet this one was written by McCartney," and then you go look. I like "Across the Universe," which does have a four minor in it. I like "Something" by George Harrison. Certainly the more psychedelic ones, like "Lucy in the Sky with Diamonds" is great. "I Am the Walrus" is great. There's really no end to...

Tim Ferriss: To the list?

Nick Ganju: Yeah.



Tim Ferriss: If you had 1,000 people, non-musicians, people who have listened to music but never played an instrument, and you wanted to get them hooked on learning more about music and potentially playing music, what would you have them read, watch, listen, buy, whether it's an instrument or otherwise?

You are in large part responsible for getting me interested in hand drumming, but I'm not sure if that's the best gateway drug for people with music. What would you have them listen to or buy or play with or do? If you had 1,000 people and you had like \$1 million on the line... I'm not sure what the minimal threshold is for you to make it...

Nick Ganju: I would do a business case and say, "I can train this many people..." No. I think that probably the guitar is the easiest.

Tim Ferriss: Interesting. I wouldn't have guessed that. Why is that?

Nick Ganju: Well, for a couple of reasons. It's probably not the easiest to play in terms of... It's kind of hard to hold a chord, and obviously with a piano you can just plunk the keys. But the second you get over the hump of learning three or four chords on guitar, you're off to the races, because you can play so many pop songs with just three or four chords on guitar. Within a few weeks you can already start to be playing simple songs.

Like "Twist and Shout," for example, to go back to the Beatles, is just three easy chords, so you can play "Twist and Shout" in a week or two really well. Then as you learn each new song, pick a song with one extra chord in it. This next song has the same three chords as "Twist and Shout" but has one minor chord in it, so now you're learning that new song. You're leveraging 75 percent you already know because it's the other three chords, and you're only picking up one new chord.

Then as you pick new songs, just add one new chord each time, and your repertoire of songs you know grows, and the repertoire of chords you know also grows. So it's really easy to get into that groove where it's fun to play because you're playing songs everybody likes, and it doesn't feel like work or rehearsal or practice. Each one you just have to practice one new chord, and over the course of a year you'll learn a ton of songs.

Tim Ferriss: Now as a couple of resources for folks potentially... One is just Googling "Axis of Awesome," who does an amazing example of showing with three or four chords how you can play almost every pop song you've ever heard.

Nick Ganju: That chord progression is called "one, five, six, four."

Tim Ferriss: Well, there you go. People could just Google that. "Chord progression one, five, six, four."

Nick Ganju: In the music theory notation it would be "one, five, six, four." They play like a hundred different songs, and it's really hilarious.

Tim Ferriss: Yeah, they're amazing. For someone to add one chord at a time without having to manually figure it out themselves and kind of reinvent the wheel, is there any particular approach you would suggest in doing that? Any way you would Google for that to figure it out or a YouTube approach or teachers?

Nick Ganju: Yeah, there's an extreme wealth of online diagrams and YouTube videos about how to do these things.

Tim Ferriss: What would you search for to whittle it down? I think it's a paradox of choice challenge for a lot of people.

Nick Ganju: I don't know, really. For the basic chords, anything will do. For example, a D major chord is just three of your fingers, your index, middle, and fourth finger, and then you have to put them on the bottom three strings of the guitar on the second fret, third fret, and second fret. It's just that. It's not more complicated than that.

There's no specific form you have to do when you approach the guitar or whatever. You just have to slam your three fingers down on those three frets, on those three strings, and you'll play a D chord. So at that level, you just need to know which fingers to put on which strings, where, and it's not an intense form exercise or anything.

Tim Ferriss: Cool. Last question for now in this installment. If you could give your 20-year-old self advice in retrospect, what would it be? It doesn't have to be one thing.

Nick Ganju: Oh man.

Tim Ferriss: Or just 20-year-olds in general. It could be you yourself, but it could be in general.

Nick Ganju: Sure. I'd say certainly when you're young, do the entrepreneurial things, because those are the things that will get you... You'll learn the most by far. Like I said, I did two start-ups in my twenties. Neither one was a great hit, but the amount I learned in one year of doing a start-up was like seven years of working at a big company.

When you're young and you've just finished college or whatever and you have this freedom and you're not encumbered with a spouse and kids you have to pay for and you can live on ramen noodles and all this stuff, that's the time to go and take this entrepreneurial risk. Even if everything you do is a complete flop, if you spend 5 years doing it, you will have learned like 35 years' worth of career

progression and life skills in those 5 years of just risking and failing and risking and failing. Even if it's a total flop, the person you come out as at the end of it is far ahead of if you had just gone and worked at a big company.

Tim Ferriss: On that point, for people who are graduating now or considering a shift, a career change... I'm not sure if this is age dependent, but let's just say for the sake of argument that they're single or they just have a very low burn rate. How would you suggest people choose their first gig or their next gig? I know it's a highly personal thing, but let's just say people graduating college in the near future, for the sake of simplicity.

Nick Ganju: Yeah, just figure out a market need, like anything you have in your day-to-day world that sucks. Is it hard to find parking? Is the movie theater dirty? And just try to solve that problem. I think that's a great way to get started. You'll learn a lot. You'll create a website where it shows you which movie theaters are dirty, and you'll realize, "Wow, there's no revenue from this website. I can't make any money telling people what movie theaters are dirty."

But that's a learning by itself. You come away from that, and you're like, "Okay, I need to think about things with actual revenue opportunities." You'll do that iterative process, and you'll flop a bunch, but that's fine. That's the learning process. It's the school of hard knocks, and you're going to learn a ton just doing that kind of stuff.

Tim Ferriss: Awesome. Well, Nick, I think this is a great place to stop for now. I'm sure we'll have a round two in person with some food and some wine.

Nick Ganju: Sounds great. A lot of fun.

Tim Ferriss: Where can people learn more about you or ZocDoc? Where would you like people to check what you're up to?

Nick Ganju: Certainly I'm on the "About Us" page of ZocDoc, but more importantly, if you need a doctor, it really is the best place to find a doctor. So zocdoc.com. For myself, I mean, I don't have a shrine to me on the web anywhere. I have a LinkedIn page. You can find me on the LinkedIn page, I suppose. But ZocDoc is my pride and joy, so go there.

Tim Ferriss: Awesome. Well, I am going to cut my teeth on some Ping-Pong. We may have to have a showdown next time we get together, *Balls of Fury* style. Awesome, man. Thanks very much, and I will talk to you soon.

Nick Ganju: Awesome. Thanks a lot.

Tim Ferriss: All right, buddy. Bye-bye.

Nick Ganju: Bye.