Ibrahim El Radi: My name is Ibrahim El Radi. I'm currently a penetration tester at Bait Systems, and I also do a few other security contracts.

As far as pen testing, the basics of it, you're trying to help an organization find what flaws they have or what potential exploits that they might have open that they are unaware of. The easiest way [00:00:30] I always explain it to my students is think of... You want to go into your house, but you left your keys so your front door is locked. You got to find another way in because you are going to find a way, you just have to kind of sit there and think, "Okay, is back door open? Is the window open? Can I climb over the fence and maybe find another way in?" That's exactly penetration testing in the simplest form, the front door is locked and you got to find another way around it.

[00:01:00] So my ultimate job would be to create a space where I can employ and kind of mentor and tutor people from any walks of life into getting into these high technical field. So maybe the first step was starting my company and then trying to get a few contracts and then eventually [00:01:30] make it more of an open, inclusive environment. So what I want to do is make it easy for anyone who actually truly wants to learn, to be able to go in and learn and then be effective in the field.

So originally I actually had no idea about cybersecurity, especially when I was in college. I knew computers and IT. And I was messing around with a 1.2 gig [00:02:00] hard drive computer. When I was growing up, that's what we had. And then I'm in college and I don't want to say aimlessly, but I'm just like, "Okay, I'm just going to do the communication and do something easy," and I'm still kind of tinkering with computers at home. And then my friend's like, "Hey, have you looked into cybersecurity? It looks really cool and interesting." I'm like, "What?" I remember a cartoon show called Cyber Chase that said the same thing, some PBS show. And I'm like, "All right. Well, let me take a look at it." At the same time, it turns out that [00:02:30] who my mentor is now had just started his IT firm, like software development firm.

And I just happened to run into him. I'm like, "Hey, I'm thinking about doing cybersecurity." And he was like, "Oh, great. Come and I'll give you some pointers. I'll teach you, I'll show you what you need to do, some A+, security plus, the basics, and then you can kind of go from there." So then once I sat down with him and kind of got a little understanding of, "Oh, this is actually not that difficult. It's very interesting and [00:03:00] maybe I should look more into this, so then I literally went and just gathered 10 of my friends like, "Guys, you have to come and you have to see what he has to show because he's doing it for free. He's just going to show us basic stuff." So then we went into this class while we're all still in college and he was just teaching, telling us, "Okay, this is what a computer is."

He brought computers, he just broke everything down, showed us from the basic, basic level of help desk support type all the way to networking, security,

and all that stuff. So then [00:03:30] after that, it was kind of a snowball effect. We just got hooked and then I changed my major. I figured out that my school had cybersecurity as a major, and I was like, "Wow." So I changed my major and it was just kind of never looked back since then.

So being a good communicator and being able to problem solve and not problem solve in an engineering sense. In a way, you've got to understand how people work. [00:04:00] Are they really going to go above and beyond and make something secure if they have to do it every day? Most of them are not going to do that. A lot of it is that you need to speak to clients, you need to make sure they understand what cybersecurity is. If you can go to these events just to see... There are other hacking events or [00:04:30] just security events that you can go to that for students are very cheap, if not free. And there are so many resources, free resources out there for you. So I would say look into it, learn from whoever you can, ask questions. Definitely look into it.

Someone who would be good in this job, in this field in general is, you have to be hungry for knowledge. You have to be willing to learn [00:05:00] something new potentially every day. And just because there's so much out there, there are all these old vulnerabilities that exist, and then not everyone patches them. So you can literally spend a whole career just exploiting old vulnerabilities. The second aspect is that there's literally, again, something new every day. So yeah, you really need to be flexible. Flexibility is extremely important because you're not going to be stagnant in this job. Every [00:05:30] week, you could find something new.

So the best part of my job is, I guess, just the fun of it, the fun of pen testing, just being able to be creative. And a lot of people think creativity is just for artists and people who are in that spectrum, but no, this is actually a very, very creative field. You really need [00:06:00] to be creative to figure these things out. So I like that it brings in a technical side of it, a creative side of it. And then sometimes you're just having fun. Some of these engagements, you get to sneak into a building at nighttime. I mean, who can do that and not get in trouble with it? I actually had a really good story one time. They had a pen test job at one of the hotels in Vegas. So they were able to get in, give themselves the best suite [00:06:30] rooms, they comped the price, and they had the email from either the CEO or the president of the company that these are honored guests and they're supposed to stay in there free of charge, they can order whatever they want.

And they walked up to the front desk, showed them the paper, got the rooms, got in there. After they got it ready, they called the manager, manager called the site lead, the person who's in charge of the pen test on the client side. And he's like, "Oh yeah, do it. If you can do it, do it. Definitely go [00:07:00] in." People are really open because it's so fun, it's something that they've never seen before. They're like, "Oh my God, someone can do that?" And so they were excited. They're like, "Yeah, if you guys can go in, we'll give you the whole day

for you guys can stay in that room." So they had room service, they called me over, we were hanging out. It was such a good time. And those are parts of pen test that can be really, really cool.

My job is kind of like a video game because of the amount [00:07:30] of, I guess, time you need to spend on it first off. And then just being creative in a sense where you got to solve the current puzzle or stage that you're in order to progress further. You can't just skip around. And if you've been playing video games since growing up, whether it's Super Mario or anything, Final Fantasy, whatever it is, you understand the progression. It's exactly the same. You're going to go through the first stage, which is the easiest one, and then through that, you're going to use [00:08:00] the knowledge you gained from the stage before to go through the next one. And it just kind of keeps compiling that way where whatever you learned previously, you're using. Whatever new tools, new techniques, new magic spells, new weapons that you gained or that you crafted, you're literally going to use that to get to the next stage. And that part is, again, another part that's also extremely fun. It's like you're real literally in a video game every day.