# Transcript: IT Leadership and the Cloud – with Dr. Andre Alfred – Partner, Microsoft Corporation

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Speaker # 1: Dave Huff

Speaker # 2: Andre Alfred

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Dave

Hey, folks, it's Dave Huff here with another episode of the IT Audio Series, and today I'm really excited to have a special guest and distinguished graduate from WGU, Dr. Andre Alfred. Andre is a partner in the Security Division of Microsoft Corporation. I mentioned he's a WGU grad and he's also got some other degrees that we're going to talk about in the course of this interview. Andre, welcome, and thanks for taking time with us to talk about you and your career and things that you're interested in and neat things that are going on in the world.

Andre

Dave, I'm so happy to be here to speak with you today.

Dave

Excellent. Well, let's just jump right in. So you partner in the Security Division of Microsoft, what's that mean? What things are you into these days? What's going on in your world?

Andre

My role is I'm responsible for cybersecurity, governance and posture for a good part of the Cloud Platform in the company. So that means Microsoft Azure, many different products, such as the Microsoft 365, Teams as well. There's a big global impact, and you see that cybersecurity is such an important function in today's world. So I'm happy to have the opportunity to serve all of our customers.

Dave

Excellent. What do you see on the horizon in that space? What's new? What's coming down the pipe that WGU grads and others would be interested in?

Andre

There's a significant challenge. In the pandemic, we've had so many migrations of businesses and personal data that have moved to the Cloud. The Cloud was huge before, but if you're watching the news, it's even bigger and definitely more central to the operations of many people's lives. That being said, it becomes quite a target for adversaries, as we'll say in the industry, to take advantage of that, and for both personal data, businesses to protect their assets is of the utmost importance. Just getting involved in the industry in and of itself, I think is a great way to help the world, so that's one, and the skills required. You can have a breadth of skills across many parts of the stack, which for me, knowing how everything works into end is just very personally exciting. Being able to have that type of scope in a cybersecurity function I think is great as can move between, you could look at how software is written, how infrastructure is configured, how it's built, what the firmware looks like. How is it presented to people through connected networks? Are those network secure? Are they encrypted? The sky's the limit.

Dave

What role does machine-learning have in security and protecting security in the Cloud from Microsoft's perspective?

Andre

You can see, we publish like trillions of signals every day because of the size of our Cloud, number of transactions that happen, the connections that are made. You can imagine that there's just way too much data for a person to really just look at implementing AI in our products, in our approach to the detections is really just required to stay on top of the scale, can learn from the signals, look at attacks, go replay them in history, and implement what we learn right back on the wire, so that creates a loop of learning and it's machine-learning, but also learning as well from all the patterns that happen, because you can't predict what any one person will do, but you can at least lock those patterns down through what the data's telling us through various, very large sources of data, such as network traffic, connection patterns to applications, what the applications logs say to us during any particular time, coordinating that signal across all those different parts of the stack is a tremendous challenge, so we leverage AI technologies to help us with that.

Dave

You used the term learning a couple of times and I'm going to spin back outside of what you're doing today. Tell me about your learning. I know that you blasted through WGU in a really short period of time, but you didn't stop there, and I introduced you with the title in front of your name, that might be a little bit new. Tell us about your educational journey?

Andre

Thank you. In 2014, I completed my bachelor of science and IT management at WGU, took me about eight months, and I was a true night owl. I was 2 AM every day more of that entire time. Then the reason why I got into it was because I was already at Microsoft and I was being asked to do things around, making a bunch of management decisions around how are we going to deploy this capital, make versus buy, that sort of thing, being a system engineer for all that time. Then being asked to lead and make those type of decisions, I just felt I wasn't equipped so I needed to go to school. My WGU experience was great. The mentors helped me meet my goal of just getting it done and working through the competency model, the certifications at the time where there's A+ Microsoft certifications, those sorts of things, that let me just apply my knowledge and just get through it. Then when we got to stats and those sorts of things, I needed the extra help, so that was where my mentor kept me balanced. From there, actually the same year that I graduated, I applied to the MIT Sloan Executive MBA program and I was accepted. From 2015 to 2017, I flew from Seattle to Boston every two weeks to get my MBA from the Sloan School, which was quite an experience. When going through the admission process, they did talk to me about the WGU competency model and I got accepted. I think that was great and felt great for me to be able to get in and go at such a prestigious place. From there, I did take a break for a little while. But then I applied to a doctorate program in engineering management at the George Washington University. That was one year of didactic study and one year of research. My research area was in Cloud operations at scale. Because if you've seen, there are articles recently released around outages and big Cloud providers that have a tremendous economic impact. It's because of the high centralization of so many businesses and personal services on the Cloud, outages are becoming more and more impactful to the economy. I blended my experience between WGU MIT and my engineering background in Microsoft and delivered a dissertation this month, and I successfully defended my hypotheses around management decisions, creating these cultures of maybe corner cutting and things of that nature that lead to outages, similar to other large-scale engineering disasters like BP oil spill, for example. I've now completed my academic journey as a student. I'm super proud of that but WGU is where I was able to get my start.

Dave

Well, that's phenomenal, and welcome to the community of scholars, and congratulations, Dr. Alfred. That's probably fun to hear. I know it was for me.

Andre

Thank you. I'm getting used to it and I appreciate it.

Dave

What are the thing that's unique about your position is we all use the Cloud? I mean, we all think we know what it is. We interact with it, businesses interact with it, but none of us are in charge of it. The problems that you have to think about in your role are critically different than someone who's a customer to Azure or to one of the other Cloud providers. That's the trust that we turn over. I mean, when we decide to trust Microsoft with our data, with our business, with our operations, that's because people like you and your teams are sitting there thinking about the economic impact of the Cloud going down. When we think about it from the business perspective, you're thinking about it on a global level so that scope is pretty awe-inspiring.

Andre

I mean, there's just a lot of unique challenges. The biggest challenges are around the scale. How do you operate such a large estate of so many data centers, servers, and one create a secure, reliable place that is compelling price-wise? I mean, the business model of that Cloud is the economy of scale giving a unit cost that's cheaper than just hosting your own stuff in your own data-centers. Even though it's a very large implementation, the key to it is actually simplicity and standardization. That's the key to new scenarios to keep those principles intact is a very significant engineering challenge.

Dave

I like that point. Simplicity is the key for you guys so that you can manage the scale.

Andre

Yes, absolutely.

Dave

It makes great sense. You mentioned the A plus certification was part of your VSITM degree. What do you see the role of certifications are in general. Now that your educational journey didn't stop with a couple of certifications. In fact, you've probably had some before you started at WGU? I would guess you did, but you went on. How do you see the relationship between certifications and accredited degrees? How does that work together from your perspective as far as hiring goes, as far as a utility in the workplace? Why not just stop with A plus?

Andre

Fair enough. Before WGU, I did have the project management professional, PMP, and the CISSP as well for security, which I was glad to get credit for, that helped me. But for me, at least from my perspective, I think that certifications definitely help prove that in this either tech stack or domain such as security, which is evolving so rapidly to prove that you have some competency, hands-on experience, that you've had some interaction with the technology set is super important in differentiating and in having the experience of the degree and having those mixed together. Because again around strategy development, decision-making, making the decision to buy or make the technology doesn't make sense for the business case. Then knowing how to actually do the implementation or have experience with the implementation of it is a powerful combination. It's a standout, is very compelling as someone and I've been hiring for a long time now for sure and specifically in cyber security. The more hands-on type of experience that experience through the certification process, the better because again, you have to have some understanding of so many parts of the stack. All the hardware that interacts with the services, how the networks in lands and all that are configured, firewall access rules, that thing, how Windows works, how the network stack works, how the permissions and privileged model work in the operating systems themselves. Programming, even the basics of scripting in Python, in Java, etc. You have to protect all of that. I mean, it's a complex stack to build any type of service, IT-type service these days.

Dave

You mentioned the word stack a couple of times. We're excited here is that because we're launching this coming year a full-stack engineering degree program, which is part of the Computer Science Division. We're excited to have that soup to nuts, a single program that takes the students through that. It's clear that education is really powerful to you and has a good meaning. To help share that, you and your wife have established a scholarship at WGU. The Sheila Guillory Memorial Scholarship. Can you tell us a little bit about that?

Andre

Absolutely, my aunt Sheila, myself, and most of my family were from the southern Louisiana area. My Aunt Sheila was a school teacher near New Orleans in an impoverished community. She would actually buy clothes and shoes for kids to be able to focus in the classroom, make house visits, then do tutoring on her own time. She was very impactful for me as a young child and to show how much air she had always stuck with me. She passed away at a very young age of 35. We wanted to do something. In her memory. WGU Advancement was able to start to the scholarship fund. Really the focus is I was in my career and it helped me advance and now I'm an executive at Microsoft. I think about it. Whenever I talk about it, it's amazing opportunity and what we wanted to do was help those transition into IT. Just cyber security by itself, not to mention IT in general, has 600,000 job openings today. We need people to transition into IT from other fields and that's really the target that we're looking for. We helped 13 students this year, and we're looking to do more next year and the year after that for as long as I can do it with WGU to get more involved in this amazing opportunity. That's the goal and we're so happy to be able to partner with the school to make it happen and make it real this year.

Dave

That's wonderful and anyone who's listening to our conversation can find information about that school, wgu.edu, there are links straight into the scholarship sections. I think this one's listed under the general scholarship. Find that and hopefully, there are folks listening here who can take advantage of that. Andre to you and your wife, thank you for establishing that. As you know, it's critical to our mission to have support from people like you and to open access where those opportunities are there. Thank you for that.

Andre

We're just so happy to be able to contribute.

Dave

That's not the only way you're contributing. You also sit on the board of WGU, Washington, as well as our Cloud computing program within the College of IT. Is that right?

Andre

That's correct. Yes. I enjoy both roles. Yes, I'm on the Advisory Board for WGU Washington, and I help promote the school here and we go through what the plans are for growing the presence of WGU Washington in Washington State. I'm on the Curriculum Advisory for IT Cloud Cluster. The conversations we have are great like being with such a peer group that are all hiring talent that's like right in where we need them. I looked at the full-stack curriculum, the focus on competency, I will say, the micro type of approach.

Dave

Yeah, the micro approach I think it's amazing. I think that it's such a great opportunity to just be able to, for everything you finish, there's this value and you make yourself more attractive to employers through the process and they're highly relevant as well. I'm super excited to continue that service to help more and more people get to the industry.

Andre

Right. You know then as well and I'll share with the listeners that one of the things that we're doing this year, as well is we're starting to specialized tracks a little bit within our degree programs. I know Cloud for instance is developing specific Azure track that someone who comes into Cloud who wants to focus on Azure can take more courses there that are focused in that. Then in my program, which is business, we're developing a Cisco deep track so folks can come through and they'll end up with really three different certifications in Cisco instead of this CCNA. Instead of only the CCNA, they'll also had that. We're starting to specialize because the opportunities are there to provide the general education, but also people are getting jobs because of their specialization.

Dave

Being able to come in and just like ready to go, right? It's awesome. That's what we need. Again, read any news article, we need all the help we can get. I'm so happy with WGU's approach to just be so in tune with the industry and the needs of the industry. It's great.

On the hiring front, what's it look like? What's this next coming year look like to you? Are there any surprises and where hiring is going to take place? What do you see unfolding for folks coming out with undergrads and graduate degrees in IT in general, but cyber?

Andre

The biggest thing I think is the fact that there are so many companies now that also just let you work from wherever you are. That sort of high concentration of IT jobs in certain cities. Big companies start to build campuses throughout more of America. But the fact is, is you can probably get a job working from home in IT, no matter where you are. I think that is a huge opportunity to make access to an IT career much easier. But also on the other side, that raises a bunch of competition as well. Looking at both sides of that, I think it's a net good thing to have so much opportunity out there that as horrible as this pandemic has been for so many, we've learned how to work from home. You see that more and more of the big tech companies are having these hybrid or total remote policies that give just more and more people an opportunity. I think it's great, and if you think about WGU, is this pioneer in this online distance learning. You figured it out long time ago and everyone else has started catching up and understanding how powerful that is as well. I think that's the biggest trend that I see. You see a lot of folks that who live, like I'm in the Seattle area, they're like, "Hi, I want to go live close to my family," and it's like fine, it's okay to do that. But if not, there's a million places that are higher up to do that. That dynamic is in play. It's real.

Dave

How is that changed the leadership strategies or management strategies for a company as large as Microsoft? Like you mentioned, WGS been doing it forever. I've been here 15 years, 15.5 to always work from home. I'll confess today, I wouldn't set it 12 years ago, but it probably took me three years of working remotely to where I felt I was getting everything out of my day that I needed to get out of my day.

Andre

Right. I think, again, it's a process of learning. You have different preferences like I'm talking to you from the office today, but no one's here other than me. That flexibility and understanding that folks are going to come in, come out so even I think just the basics of collaboration are being practiced and making sure you're always on the video, that sort of thing, so some of those basics. But for managers, understanding that you have to make an active attempt to make sure that your team is in sync with you, you understand their morale at any given time. You have to reach out. You're not going to just naturally bump into them in the office and see how they're doing. I say I think that's the practice that a lot of managers I happen to go through that are from companies that have been highly office driven. Also when you have a strategy and you want to implement it and get buy-in, I think everyone's seen the meeting count has gone up and up and up. Innovating ways to disseminate information without everyone having eight hours of meetings every day is the, I think a lot of what the industry is learning how to do effectively. It's not all figured out yet technology and how all the big video conferencing platforms have taken off the features they're adding. I think it's just going to be a heavy research area for a while, but it's going to be here to stay. From the perspective of managers, you have to stay connected to your people no matter where they are. I would say that's my advice.

Dave

I love, the response. At the end of the day, we can talk about technology, but it still comes down to the people and leadership. It still comes down to people being able to calculate, perform their jobs and leaders being tied into the needs of their workforce.

Andre

Absolutely. Every now and then I'll go back to the, what is technology even mean? It's innovation that makes humanity more productive. It's always a human thing. I think we forget that sometimes when we're trying to automate things and mix stuff less tiring or taxing, it's really just to make us more productive, and as long as we keep that in the center of our thought process as managers, it'll be okay.

Dave

Right. What keeps you up at night? What do you worry about in the industry or in the face of technology and advancement?

Andre

I guess there's two things. One just in cybersecurity, it's like what's the next thing? We're building our systems in a way that are agile enough to be able to respond to some new unknown. Is the super-important, keeping flexibility and agility sort of top and the top of the priority list is important. The other side, I think we just need more IT professionals in the economy. I think it is from just sorted the macro level and we're seeing it now. I mean, we just have so many job opportunities open that we have more dependencies on the Cloud and we need people to help us innovate through that. Engineer it, support it, maintain it. That's from the datacenters' stack all the way up to the server system themselves and how they deploy. The demand is moving at a faster clip than the base of people to hire. It's more jobs open than people available. You've seen me put in my life and I put our money where that concern is with which is helping us get into the industry, doing what we can, partnering with the school as an example, just to really keep the industry growing, keep the industry safe, making sure we have safe operations for all people as we make this big Cloud convergence happen. I think those are the two big things for me.

Dave

Were trying to do our part in producing the workforce through your collaboration and your help in all of that really matters. It matters to our students and from your level, it matters to the industry.

Andre

Yes.

Dave

That's great. Andre, anything you'd like to talk about before we finish up that we miss any topics that are near and dear to you.

Andre

No, you really touched on them right around. Just, I'm really enamored by WGUs approach. How you'd help me get into my job and I wanted to bring more with me and the fact that is, it's just the time is now. It's just so hard. It's like if you ever wanted to do like come on in. I think those are the big messages I wanted to land by appreciate you giving me the time to talk about it with you.

Dave

It's been great for us and I'm really excited to get this conversation out in front of our students and share with them what you've shared with me. Thank you for your time. Folks, this is Dave [inaudible 00:25:31] and we've been talking to Dr. Andre Alfred, who is WGU grad among other programs, MIT in George Washington and he's also on our Advisory Board, WGU Washington and the Cloud Cluster in IT, and he's a partner in the Security Division with Microsoft. That's a lot of things Andre, that you're doing and you're doing them all at an extremely high level. Thank you for carving out some time for us today and for sharing your expertise.

Andre

Thank you, Dave.

WGU, a new kind of you.