

NCF #CyberChats Podcast Episode 003 - March 2023

00;00;00;01 - 00;00;07;01

**Erica Wilson:**

At the core of cyber security, risk management is ingrained in everything.

00;00;09;29 - 00;00;49;00

**Jen Langdon:**

Hello and welcome to CyberChats, a podcast made by the National Cryptologic Foundation. I'm your host Jen Langdon, and together will be demystifying the world of cybersecurity by talking with amazing cyber fanatics like you, as well as industry professionals.

We're celebrating Women's History Month by highlighting two women who are excited to get more girls into cyber. You'll be surprised to know that our first guest, Jamie, a senior high school student in Ohio, is on her way to a career in cyber and doesn't even own her own computer yet.

00;00;49;15 - 00;01;14;15

And because any decision you make in life and in tech involves risk, we'll be talking with Erica Wilson, a risk management expert from Saint Louis, Missouri. She'll share her passion for STEM and some great career tips.

How did you do on last week's challenge? If that whole thing was a big squirrely secret, then you should watch our solution videos so you can learn some cool tips on how to find hidden information on websites.

00;01;14;27 - 00;01;37;18

Great work to all of you who attempted the challenge and made it on the leaderboard. Special shout out this week to some of our participants who have submitted to both challenges: mayu, Sapphire, Glitterbomb, therealhermione, AT, NC, CB, and EW. Thanks for your dedication. We'll have a grand prize at the end of our six episode pilot and submitting to each challenge will increase your chances of winning.

00;01;37;23 - 00;02;00;12

So, if you haven't tried our biweekly challenge yet, it's not too late. It's live on our website now at [cryptologicfoundation.org/podcast](https://cryptologicfoundation.org/podcast). This week's challenge was made by our guest, Ms. Wilson. Risk management involves making decisions. Tell us what you decide.

We have a special note for this week. We will be on an extended break as we speak with some of you in our focus groups.

00;02;00;21 - 00;02;22;03

We'll be back with three more episodes starting in April.

Our first guest today is eager to speak with you all about how they got into cybersecurity and the amazing opportunities that are available to their pathways starting in high school. Jamie Kemp, welcome to CyberChats. What drew you to cybersecurity?

00;02;22;23 - 00;02;45;13

**Jamie Kemp:**

So first of all, it wasn't a natural bond at first. My mom had encouraged me to take an intro to programming class. And then my now teacher, Mr. Ben Dardery, talked to us at the end of the school year when we were doing deciding classes, and he was talking about cybersecurity. And it was one of the first few years that they had it.

00;02;45;25 - 00;02;58;04

And he was saying how it wasn't going to be like programming where you're just putting in code. And how it's this new fun idea that we had for school. So I tried it out for the first year and I've been here ever since.

00;02;58;14 - 00;03;17;24

**Jen:**

Oh my gosh. So I know we've talked about the program at your high school. And your teacher's known in the cybersecurity community also for this program. What experience, if you don't mind me asking, have you gained from being a part of this program? I thought you said that you've done some outside of schoolwork, correct?

00;03;18;00 - 00;03;49;26

**Jamie:**

Yeah. So I did an internship last semester at U.S. University of Cincinnati with their CCSP, so, Center of Cyber Strategy and Policy. It's more the politics side of it. So, like, seeing in with the government and seeing how they intertwined and like what overlaps with day to day cyber workspaces and then government cyber workspaces and what they see and what we can do to protect.

00;03;50;08 - 00;04;12;22

And I helped with two events. And then we also-- one of the events was a blue team versus red team where we had volunteers of blue team come in on, like, a virtual machine and try to protect this village and county. And then the red team was trying to attack it and I was in the white cell so I could oversee everything.

00;04;12;23 - 00;04;13;27

It was a lot of fun.

00;04;14;02 - 00;04;35;03

**Jen:**

That is super fun. What a great experience that you got to have. I know that you are the WiCys president at your school, and just so everybody knows, WiCys stands for Women in Cyber Security. And they also say it sounds like "we sisters." So what does that mean, being the WiCys president at your school?

00;04;35;19 - 00;05;02;07

**Jamie:**

So I help give the ideas and I talk with my vice president mainly on what we're going to plan for each month on basics for our group. Usually we're trying more on like not just having people and talking to other WiCys members, but also give them tools. So, end of this month, we're going to do a resume building since internships are coming up and get them prepared and ready for them.

00;05;02;07 - 00;05;27;28

So we're not struggling because obviously resumes are a big deal in the internship part of it. And then we recently talked to members of the Women in Cybersecurity Club at UC in what they are doing and what they would say we should get prepared for in college and like what computer and all those basic things where some of us don't know what to do.

00;05;27;29 - 00;05;42;03

**Jen:**

Right, exactly. That's such meaningful experience. And like, it's great to have that sort of mentorship relationship. What have you learned-- I guess, overall, what would be the biggest lesson that you've learned from WiCys or being a part of this group?

00;05;42;13 - 00;05;56;25

**Jamie:**

Always to reach out and having someone like in a small role is so meaningful just to reach out and be like, What would you would do in this scenario? Or like, have you heard of any internships at your job? And all these little things.

00;05;57;10 - 00;06;23;12

**Jen:**

You know, one of the questions on everyone's mind in the cyber community is how do we draw more women and girls into cyber, right? Even WiCys is currently dedicating a whole research effort to discovering obstacles to girls and women and really going in-depth to understand why we can't get more of them in the career field. How do you think we could draw more girls to cybersecurity?

00;06;24;04 - 00;06;48;12

**Jamie:**

I think it's, first off, stopping the stigma of boys are with computers at a young age, that they are with video games. Because I know a struggle for myself and getting into it was like, I'm not a computer person because I haven't been doing these video games and had a computer at a young age. So that part of it, because I'm still worrying about computers, because I don't have one myself.

00;06;48;12 - 00;07;14;07

I only have my computer issued from school, which is a big, important thing, obviously. And then also some of the classes are very open ended, which personally for me at sometimes is a struggle because sometimes you need a little bit more structuring. And I think there's a lot of material out there that, like Professor Messer who has videos on certain ideas and in-depth analysis that really help people.

00;07;14;19 - 00;07;31;11

**Jen:**

Yes, to me it seems like one way to get more girls and other underrepresented groups, of course, into tech careers is to kind of require that they take, you know, tech classes in high school or even more rigorous tech classes. I know when I started, the one class you could take, it was called Computer Science 1.

00;07;31;11 - 00;07;44;09

It was typing and word processing, which is not computer science in my view, or the view of the tech space, I don't think. So do you think everyone should be taking a class in cybersecurity?

00;07;44;29 - 00;08;14;16

**Jamie:**

I don't think everyone necessarily needs to, but if you have even a teeny tiny bit of wonder of tech at all, of computers, I think you should take it just to see if there is any interest at all for you. I do think in the future it will become something that you need to take, which I think is a good thing since users are one of the biggest threats to their own devices.

00;08;15;26 - 00;08;25;29

**Jen:**

Exactly. It's about the person behind the screen. You know, you can click on whatever you want and you will face the consequences of their actions.

You were a student panelist--

00;08;26;13 - 00;08;27;16

**Jamie:**

Yes, I was.

00;08;27;16 - 00;08;41;23

**Jen:**

At NICE K-12. And you had great insight to offer about your cyber experiences. So if you knew about the field of cybersecurity-- you didn't have to be persuaded, let's say. If you knew about it sooner, what would you say to your past self?

00;08;42;12 - 00;09;01;14

**Jamie:**

I would wish myself to open up YouTube and look at any cyber video I could get my hands on and start early and get at least a little bit of info in beforehand because obviously I learned a ton in my classes, but having extra material that I have already would have been great.

00;09;02;04 - 00;09;08;12

**Jen:**

We are so thrilled you could speak with us on CyberChats today. And we wish you a thrilling career moving forward.

00;09;08;22 - 00;09;11;26

**Jamie:**

Thank you very much.

00;09;13;04 - 00;09;43;19

**Ilana Payne:**

Security is a shared responsibility, protecting ourselves and others in the cyberspace.

**Jen:**

We are excited to introduce you to self-proclaimed cyber shero and mentor, Erica Wilson. Erica currently works in risk management for a large reinsurance company. She also is a board member for Cyber Up and an advisor Board member for the Security Advisor Alliance. Thank you so much for speaking with us today, Erica.

00;09;44;07 - 00;09;53;12

Can you share with us what your current job title is and maybe a few of the roles you've had before so anybody interested in cyber can easily look those up?

00;09;53;25 - 00;10;22;25

**Erica:**

Absolutely. So my current title is a mouthful, but I am the Vice President of Cybersecurity and Data Privacy Risk Management. It's a really long title, but it basically means that any risk pertaining to data privacy or cybersecurity typically fall in my team's lap and I to work our way through. I've held several positions. I've been working in cyber for well over 20 years.

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I started as a cybersecurity analyst and moved into different facets of the industry from leading awareness and education campaigns and having a team that does that all the way through to the operational side of cybersecurity. The last role I had prior to this one, I was actually a chief information security officer. So that's kind of the top position that you can make it to in this space.

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So I have really been fortunate to be a part of this amazing industry and have a journey that I'd like to share with others.

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**Jen:**

Today's episode is really about analyzing risk. Can you describe how your job really involves that sort of analysis?

00;11;08;29 - 00;11;40;03

**Erica:**

So everything that I like to talk through when it comes to risk management is all about making decisions and making the decision that's best for the situation, the scenario. And so when you think about cybersecurity generally, you have things that are factored in, like what data does the potential decision impact, what particular entities or stakeholders - whether it's customers, clients, business partners - does it impact?

00;11;40;03 - 00;11;49;11

So it's thinking about the decision that you're making with the risk lens, considering all those stakeholders that could potentially be impacted.

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**Jen:**

So how did you even, you know - just to backtrack - how did you get interested in this field? Can you kind of explain what inspired you or how that happened?

00;11;59;11 - 00;12;26;12

**Erica:**

So cybersecurity in and of itself, I like to tell people that there are so many different things that you can do. You can be a super technical person for the long tenure of your career. You can be more focused on

training, awareness, and communication. I mean, there's all different skill sets that we need. But at the core of cybersecurity, risk management is ingrained in everything.

00;12;26;21 - 00;12;52;06

So when you think about even like the tools and the things that you select in a company that you work with, there's some form of outweighing, you know, risk of one tool over the other, whether even if cost is a factor, right? There are different risks that you have to weigh to make a decision. So I feel like by the nature of being in cybersecurity, everyone is a part of risk management.

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And even if you think about just daily working for a company or daily in your lives, you're making decisions that could impact certain things. And so risk management is at the core of everything that you do when you think about decisions, right? Just to be practical, right? What do you what do you eat every day? What do you eat for breakfast?

00;13;11;23 - 00;13;30;12

What do you eat for lunch? What goals are you trying to attain and knowing that certain things that you may eat could pose a risk to your health. So it's kind of ingrained - if you think about it from that perspective - in everything that you do that you have to make a decision about. You have to weigh the risk of what it is that you're doing.

00;13;31;02 - 00;13;54;03

**Jen:**

You know, you kind of hinted at, it's always changing. There's always new things, including, you know, new vulnerabilities that are always being discovered because hackers are always looking for the next thing. And honestly, those vulnerabilities may currently still exist. How do you gain information to be aware of these new risks and issues as they come to the forefront of the attention of the community?

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**Erica:**

Yes, that's a great question, because what I would say is, if you want to be in this industry, you have to be a lifelong learner because things change so rapidly and even with them changing, right, you have to be plugged into the industry to know what experiences others are seeing. So one of the things that you may do is, you know, read some of the articles that are posted, some of the blogs where people are spending their time observing what's happening.

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Also, you read because generally there's always some not so good news of something that, you know, maybe some company has experienced and you can learn from it. A lot of us learn from others' mistakes. And so we're always trying to take information in. And then there's a thing called threat intelligence where you can receive feeds about what's prevalent, things that are happening right now, what types of attacks are happening.

00;14;54;21 - 00;15;15;05

So you have to find ways to plug in within your network. Talking to peers at other organizations. We are certainly in an industry where we share information a lot more than maybe some others, because at the end of the day, we all want the same thing. We want to protect the companies that we work for, protect the communities that we're serving in.

00;15;15;12 - 00;15;21;28

And so in order to do that, we have to have relationships that span even beyond just the companies that we're in.

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**Jen:**

You mentioned that, you know, you have to be a lifelong learner to be in this industry in general. What other skills, I guess, helped you move forward in your career or into this role?

00;15;34;25 - 00;16;03;16

**Erica:**

So I would start by saying that most people assume that in this industry that all you do is sit behind a keyboard all day and you never talk to people. And that's probably the biggest myth. Communication is one of the best ways to grow in this career. So being able to effectively communicate, whether it's giving a presentation, think about having to solve a complex problem.

00;16;03;28 - 00;16;26;12

But you need to explain the problem and your recommendation to someone that doesn't know technology and they don't know acronyms, right? You have to be able to just speak in layman's terms. And then the other piece of that is how well can you write and convey what you want to say on paper or, you know, in an email and get to the point.

00;16;26;20 - 00;16;58;05

So communication is a really, really big, strong skill that we look for. And where I've seen people, when they develop and do well there, they certainly kind of see the growth happen. The other one I would say is just making sure that you leverage what you're good at. Some people are really good at, you know, learning about new technology and researching where some people want to be on the receiving end of that and figure out how to develop a plan to take action.

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So once you start figuring out your own passion and your own purpose, I think that helps as well with being able to just stay always learning and focusing on the areas that you're really good at as well.

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**Jen:**

Also, when we talked earlier this month, we discussed how different industries, different companies, they look at risk and cybersecurity - well, cybersecurity risk, let's put them together - they may look at them differently. Is it good to be always risk averse or are there times when it's okay to be what they say is risk tolerant or to take a little bit of risk?

00;17;36;21 - 00;18;04;02

**Erica:**

Yeah, you know, I would tell you this and to try to give a good scenario, it really depends on the industry. So think about let's step back a moment and think about health care as an industry. People being admitted to the hospital, hospital rooms and all the data associated with a patient and doctors being able to get it right because they need to know exactly what it is they need to do.

00;18;04;22 - 00;18;29;10

They are going to be certainly more risk averse around some of the technologies they use, some of the ways that they handle data transfer data. And so it really just depends on what industry you're in and what your stakeholders - whether it's shareholders or the people that you are servicing - expect. The other thing to think about is at the end of the day, bottom line, right?

00;18;29;10 - 00;18;49;25

So if you are profitable or you're seeking to have profits, you have to manage your risk to a level that you're not spending everything at one time. Like, okay, we need all of these tools right now, right? Are you going to be able to effectively implement them, have people trained on them, and use them all at the same time?

00;18;49;25 - 00;19;16;07

Probably not. So maybe the option might be to take a step back, focus on where your most riskiest threat is, apply something to that, and then create a plan and a strategy to implement things over time. So that kind of gives you a view into how you have to think about it, because at the end of the day, there's some level of risk that everyone's tolerating because of time.

00;19;16;07 - 00;19;22;06

You can only go as fast as the dollars and the people that you have. And so--

00;19;22;07 - 00;19;23;04

**Jen:**

There's limitations, for sure.

00;19;23;04 - 00;19;43;17

**Erica:**

Exactly. There's definitely some limitations. But I think, yeah, it really depends. There are some places where, you know, a lot of the information may already be publicly available and they're not trying to protect information as much. Maybe it's more reputation that they're trying to protect. And so they might be willing to take a little bit more risk than others.

00;19;44;06 - 00;20;08;19

**Jen:**

In a new direction: I know that you're a huge proponent of getting girls into STEM careers. No secret-- I am as well. And you're particularly passionate about cybersecurity. There's so much room and potential for everybody to grow in this in this field and find success. Do you think the needle is being moved at all, getting more girls to see their potential in technology fields and careers?

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**Erica:**

So I would say that there certainly have been some dedicated efforts to help in this space. I don't think we're where we need to be at all. I think we've gone through kind of cycles of there being a high point and then we kind of go back down to a low point.

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And where this really I think we're losing the interest - and a lot of people say there's data to show - it's kind of at that middle school level, right, where maybe they enjoy math early on. But something



happens in middle school where the attention isn't given or there's not as much of a focus to promote it. And I think the other thing is because we have so few – or, I should say, we're the minority in this industry - a lot of girls don't see and know what the potential career options are.

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And that was the same for me. I'll be very honest. Most of my math teachers were women. And again, that was going to be my field of choice and I was going to be excited about doing it. But I hadn't seen a computer scientist or a woman that worked in technology, so I didn't really know.

00;21;23;28 - 00;21;44;07

But my coding instructor was actually a woman. And so that helped me kind of put that together, you know, kind of piece that together. And I think as much as we can, you know, women that are working in technology, see, or in science or in cyber can show up in our communities and make our presence known.

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I think that will shed some light to girls to say, hey, let me explore that. Let me think about that.

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**Jen:**

So what do you think could be done, maybe from an industry standpoint and maybe from a parent standpoint and maybe from a kid's standpoint?

00;21;59;10 - 00;22;23;11

**Erica:**

Let me focus on the parent first, because I feel that a lot of things start at home, right? Our children now are exposed to technology so early. And even if you think about the parental view of how you want to protect what they do and what they see with all of these devices. I remember thinking when my daughter was six, she had already five or six--

00;22;23;11 - 00;22;53;00

She already knew how to navigate an iPad, iPhone, and Android device, you know, a Chromebook. She could go between them all. And I remember thinking, when I had to learn just two different operating systems, what my mind felt like. And it's just so seamless. And I think from a parenting perspective, if you just take a step back and think about all the ways that devices are connected in our homes, right?

00;22;53;00 - 00;23;16;16

We've got smart TVs and we've got, you know, refrigerators, and we've got thermostats and we've got all of these things. But having conversations around, you know, when you sit down and talk to them about how they show up and their presence on the Internet, like that's the first thing that cybersecurity is about, all of these ways that things are interconnected and how you have to make sure you protect yourself.

00;23;16;25 - 00;23;40;01

So if you start at home with that conversation, that's really the first cybersecurity one-on-one lesson. You have a reputation because what you post, what you say, what you put out there could follow you for the rest of your life. You have a personal brand, meaning your information about you and your

family that you know you may want to protect and make sure that you don't disclose too much information.

00;23;40;01 - 00;24;12;04

You have the stranger danger concept on the Internet, just as you do when you're out and about in the street. And so that kind of one-on-one discussion is cybersecurity. And so if we could think more about, like, this is kind of what that is, right? Like we think about firefighters and we think about police women and men, this is protecting people that are on the Internet or protecting companies as they are represented and how they are connected throughout the cloud, as we call it.

00;24;12;17 - 00;24;37;24

**Jen:**

Well, I think you mentioned some things that, you know, kids could do, too, and that is, you know, really thinking about what they do post and really thinking about their presence on the Internet. And parents just really need to push the conversation. What do you think about other efforts, though, about maybe when you shift the conversation from yourself and protecting yourself to taking the next step to explore cybersecurity as a career?

00;24;38;08 - 00;25;05;20

**Erica:**

So in the past, right, it was, what university did you attend? Right? Do you have a four-year degree? And now if you think about the fact that all of these other skills work so much-- like they work well, when you think about technology and cybersecurity, companies now are opening their minds to, you know, with a little bit of training and we can provide it for you, we can come in and jumpstart your career.

00;25;06;07 - 00;25;23;08

And so I think giving exposure to some of those options that are out there is good as well. Because some children, let's be honest, four year degree, some of the potential debt that may come with that—they're just not interested.

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**Jen:**

It's a deterrent.

00;25;25;05 - 00;25;43;00

**Erica:**

They're not interested. And so I think making sure that we introduce them to programs like Cyber Up that I'm a part of that provide apprenticeship opportunities, you know, some training and mentoring to get people interested. It would be a wonderful thing.

00;25;43;12 - 00;25;54;02

**Jen:**

Erica, thanks for sharing all this awesome information with us today. Women's History Month is coming up. What do you want your legacy to be?

00;25;54;20 - 00;26;26;25

**Erica:**

I would say that my legacy - and it's something that I'm so passionate about - is just to make sure that people understand being a champion for women in technology and cyber is an amazing thing because there are so many opportunities for women to shine. And so, yeah, if I were to leave at some point, I would just hope anybody that I mentor or I work with understand that this is certainly a passion of mine and I want to see more of us in this space.

00;26;28;12 - 00;26;47;11

**Jen:**

That's our show! Thanks so much for being a part of our community. We can't wait to see how you do with this week's episode challenge. Go to the CyberChats podcast page on our website at [www.cryptologicfoundation.org](http://www.cryptologicfoundation.org) to find this week's challenge, submit a question, and join our focus group to help improve the podcast.

00;26;48;12 - 00;27;06;23

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