Digital Tech College & Career Readiness Series
Digital Skills Jobs in the Capital Region

Lindsay Johnson
Welcome everyone to our digital tech college and career readiness series, our panel today will be about digital tech career paths that are available to you across the Capital Region, the area from Baltimore to Richmond. My name is Lindsay Johnson and I'm the Manager of Programs and Insights for the Capital CoLAB, which is the talent and skills division of the Greater Washington Partnership. I'm very excited to introduce our talented set of panelists today, Dr. James Stanger is CompTIA's Chief Technology Evangelist. Darrell Booker is a Corporate affairs Specialist in Tech for Social Impact at Microsoft Corporation, Mike Batt is the Talent Initiative Director at Fairfax County Economic Development Authority. And finally, Julia Lonczynski is an HR Program Manager in the office of Recruitment of Student Programs, National Security Agency welcome panelists. And I wanted to go ahead and get started just by going around the Zoom room here and asking each of you to describe the day to day work that your organization does and what your role is. James you're first on my screen so why don't we start with you.

James Stanger
I represent CompTIA, we're a Trade Industry Association which sounds really boring but it's actually really cool. Every day, what we do is we represent people in the IT industry, and these are people who are working every day. Cloud workers, people who do cybersecurity. It's a lot of fun talking to working professionals. The other day for a company Northrop Grumman, there was a sign in the hallway that said something to the effect of all explosives, weapons and firearms are disallowed after this point, unless it's relevant to the meeting that you're having. Now I've walked into a few tough rooms before, but that was an interesting experience now. It's really fun talking to people around the world about information technology especially to hiring managers. So, there you go.

Lindsay Johnson
Thanks James. Mike you're up next.

Mike Batt
Thanks, yes, I work for Fairfax County here in Northern Virginia just outside of Washington, DC, in Fairfax County does all kinds of things frommaintaining the parks to the tax collections, to the office that I work in is specifically focused on what they call economic development, it's really helping promote the county to help bring companies here so that there's jobs for you as you finish up with high school and go on to college wherever you might be looking to do afterwards and so my role is to help promote the county and make sure that folks like yourselves and folks around the country realize there are a lot of jobs here and great career opportunities for you.

Lindsay Johnson
Thanks, Mike. Julia, you're next on my screen.

Julia Lonczynski

Hi, I'm Julia. Currently I am the program manager for our high school work study program, which is perfect for high school students. But, I also work with students that are going into their senior year of high school as well as during their college career. So, we hire from HR to computer scientists, so there's really no limit. Of course you get a security clearance so then you're going to contribute towards NSA mission to save lives.

Lindsay Johnson

Thanks Julia. and Darrell.

Darrell Booker

Hello everyone, I'm Darrell Booker and I work for a little company you might have heard of before called Microsoft. But, more specifically I work within a tech and social impact group, which is geared towards helping all types of nonprofits and organizations, locally actually, that are working on social impact issues. Which, could be working with youth like you all and training and skilling you all up to be, you know, our future tech leader. So, I say I have the best job in Microsoft because I get to talk to a lot of great organizations, big and small across this country that are actually doing things right in your community.

Lindsay Johnson

Thanks so much, it's really interesting to see how you all are working with digital tech in some way but having such diverse roles, it's really cool to see all of the different career paths related to the tech space and I think that's important to see. Keeping it kind of on a fun note Darrell, I'll stick with you here. Can you share what your favorite subject in high school was, and then something you learned in high school that you use in your role today. And then we'll just go around the room, everyone wants to jump in.

Darrell Booker

For me, it was math. It was the least boring subject for me. So I really enjoyed that. And unfortunately, I am in charge of a pretty big budget so really thinking back to you know even those basic math skills to ensure that the work that we're doing part of this program that I don't spend too much money. And actually, there's a thing in corporate America where you have a budget and you get in trouble for not spending enough of the money so you know that's where my math skills kind of come into play.

Mike Batt

For me it was Government. I thought it was really cool, especially because we're sitting here in the Washington, DC area where our federal government is headquartered. You get to learn how government works because it's really important to understand you're gonna have taxes that are taken out of paychecks and how the government helps manage the roads to police the schools that you go to. And so understanding how government works and the democracy around it and

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thinks just was really fun and important, as you get into the working world to understand how life works. And it also helps you even over in the tech world so it was really fun class.

Julia Lonczynski
I'll jump in. My favorite subject was math as well. I was really bummed because I didn't get to take AP Calculus my senior year because tt interfered with my work today with NSA. But, I also do manage a larger budget so as Darrell said, you know, gotta make sure you spend it all or, if you don't spend enough people are gonna sweep it. You need to know those basic math skills to get you through.

James Stinger
My favorite topic in high school was probably Led Zeppelin, maybe, out of the Grateful Dead. I played guitar a lot, but my favorite subject was world history. I enjoyed reading about world history and philosophy specifically. I'm afraid Mathematics was hardly my hardly my metía but I'll say this over the years I've done a lot of work in pen testing and things like that. It's been interesting to bring in a different worldview to that.

Lindsay Johnson
So interesting to see how again you don't even have to love math to end up in a digital tech role like this. Darrell and Julia I'm going to toss it back over to you both. What are some of the most in demand and high paying digital tech jobs that you see within each of your organizations, particularly in the capital region from Baltimore to Richmond.

Darrell Booker
To jump in first, hands down, it's cybersecurity. When we think of the DMV area of this entire area, as we all know there's tons of, you know, federal jobs. And for us at Microsoft, if you were to google the Jedi contract, there was a really big contract and was up against with Amazon and we won that for the Department of Defense and Pentagon, which ultimately means. I think hundreds of more like 1000s of jobs in the capital region around cybersecurity. So, definitely that is something that, you know, is available. And it's a hot job everywhere, but really focused in this Capital Region.

Julia Lonczynski
Kind of tagging along with Darrell said. We recruit for cybersecurity as well but also for Computer Science, Computer Engineering. We actually stood up a brand new Directorate with cybersecurity. So we're always looking for new people with new ideas because people are getting smarter nowadays. You know, adversaries are always getting smarter hiring the correct people so we need the correct people as well. So we're always looking to expand and it could be someone that's not even really interested in the cyber world right now, they might change their mind while working at the agency and slide over into that position.

Lindsay Johnson

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Mike, I know in your role you think a lot about economic and workforce development. Is this what you're seeing region wide as you're doing work to attract employers to the region as well? Can you talk about that and maybe some more digital tech and tech adjacent roles that you see in our region.

Mike Batt
So, again, the opportunities that you just heard about from Darrell and Julia, same thing that I'm seeing on a broader scale here in Fairfax County in Northern Virginia. The sky's the limit. I mean there are so many opportunities, There are over 100,000 jobs available right now, most of those in the technology fields, I'd say, you know, in software engineers when you hear cybersecurity again, making sure that data is safe when you're using your credit card online, or you're buying something online or to make sure that the data that you're storing on tik tok and all the tools and fun things that you're using are safe. And then cloud. You heard Darrell talk about the contract that Microsoft won and that's that's the store data in the data centers. Right here in Northern Virginia in Loudoun County that's the data center storage capital of the world. I mean, that's where we have most of our data center, so the job opportunities here are huge and just looking at a report here right now, thinking about you coming right out of high school and opportunities for you - there's over 10,000 jobs just for entry level employees. And those jobs, the median and the mid range salary is $82,000. It's tech, it's engineering. I've been in sales too. I spent 30 years in technology, working with Darrell's company too, with Microsoft. And I was always on the sales side and the marketing side so there's opportunities, even in technology that allow you to be in that field, without the deep technical expertise but there's opportunities across the board.

Lindsay Johnson
Are you saying the cloud isn't in the sky, it's in Northern Virginia? Fun fact, for everyone

Darrell Booker
Well there's a few more cities and locations across the country and of world, but to Mike's point Northern Virginia is like the epicenter of the cloud.

James Stanger
I thought the cloud was in Seattle where Amazon and Microsoft are located?

Darrell Booker
That's just what cubicles are. That's it.

Lindsay Johnson
Well I know that's not something I knew about the region when I first moved here. That's just like a fun fact for everybody, I think. For all of you just kicking it back to the whole group, what types of classes do you suggest students take in high school to prepare for a lot of the jobs you just talked about, or even prepare for college courses that will ultimately to these jobs.

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James Stanger
You know, one of the first classes that you could consider taking a look at I know you're going to be expecting you know some sort of computer class computer science, something like that. And that'll work, how about a good business Law class that something that would really work out very well for you. I've noticed that as people leverage whatever background they have, whether they've worked service industry or whatever. If they have some sort of business understanding how it works. They can leverage their previous experience, they could learn about some business, business law, and that they can leverage that very very well.

Darrell Booker
I would say, you know, any type of class that may teach you the basics around project management. I don't even know if that class exists. Maybe someone should create that at the high school level, but you know I think of so much of the work that all of us on this zoom call know, you end up getting a lot of things put on your shoulder, so being able to just effectively you know prioritize things and, you know, understanding, you know how to create timelines, milestones. And then also, you know, working with other teams and you know when you need to pull into someone else and you know when you need help with delegate tasks to other people. So anything that can teach you the basics around that, I think you can use in literally any job for the rest of your life.

Julia Lonczynski
I'll jump in now. This is gonna sound really silly but Microsoft Excel and Word, because you'll be very surprised, of how many people who do not know how to accurately do an email or know the nuances of an Excel spreadsheet. So I think those are basic skills that everyone should have because when you're going into the office or when you're writing promotion packages and everything like that you're going to need to know how to use those types of functions.

James Stanger
And Julia, the ability to write, and to read for an argument, things like that.

Darrell Booker
Just to piggyback on to Julia and I promised you, this is not necessarily me coming from my work for Microsoft. I've been at Microsoft for two and a half years so there's a lot of Darrell prior to Microsoft, but notice Julia mentioned Word and Excel. She actually mentioned those tools. I know a lot of you all on the high school, you're very familiar with Google products and some of those things and you use those really well, but what you do not know is once you get into enterprise organizations, corporate America, they're not using those, and it is, you know, a little bit of a learning curve coming from Google Docs to these other tools that she's mentioning. So please do not underestimate the need for because you'll get thrown in and, you know, you got to create you that PowerPoint deck, and you know, the worst thing you can do is just struggle with how to even, you know, use tools.

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Julia Lonczynski
He nailed it right on the head. It's exactly that.

Lindsay Johnson
It sounds like a lot of the courses and skills that you're all talking about are also things that students can get through extracurricular activities to and that's maybe a great place to get project management skills, or just more opportunities to read and communicate so I really like all those ideas that you shared. James, I'll turn it over to you because I know you have a really global and international view of some of the skills that we're talking about and trends that we're seeing. Do high school students have to complete a bachelor's degree to get a good digital tech job and I guess also what will help set students apart in our region as we're thinking about these roles.

James Stanger
When it comes to a four year degree it's generally not something that is absolutely necessary to get an IT job. I know this because I got three degrees: I got a PhD in English so that meant I got a Bachelor's in English. I got a master's in English and a PhD in English. I refer to those as my PhD in unemployment. I am a firm believer that when it comes to the IT profession, you can get an entry level job without a degree. I'll say this there are some organizations that will still require something like that I see that, sure. But increasingly, you're seeing people who have the right skills for the right job. And to your second question. It's all about hands on. It's all about people. I think was Julia who brought up volunteer work or something and extracurricular activities. Those extracurricular activities are important. Find a club, find some sort of organization. I don't care if it's faith based, I don't care what it is. That you do work, implementing something and that goes to Darrell's point about project management. That goes to the point that they're looking for people who can leverage their skills. I'm not saying, you know, don't go get a college degree necessarily, but I am saying, Be very wise where you spend your time and your money, so that you have the appropriate education for what you are doing and what you need to do.

Darrell Booker
And if I could jump in one I want to piggyback on something, you said Lindsay around, you know you can get some of these skills, outside of courses you can do it on your own, there's this thing called the internet. So, literally everything that we told you from project management to Word Excel, there's the internet, there's YouTube. You all are at a huge advantage that us on this call, we didn't have a lot of these things as much in our fingertips as you do now. But, I think also need to realize and kind of get into James point, this is one of those fields where, you know, if you have that device and the internet you can learn so much on your own. Doctors can't do that, you know, lawyers can't do that. A lot of professions cannot sit at their computer and master those, and you know, to echo James point. I have no degree. No bachelor's, no associates, literally just maybe a year or so ago one of my first certifications in Azure Cloud and as to because, you know, to James point I was one of those types of people that just dove in. And I learned and learned a lot on the job and, you know, did a lot of these things on my own, so I

echo him and I'm saying, you know, I'm not saying you don't need to go to college, but let's be honest, it's not right for everybody for a lot of reasons - you cannot afford it. And if that is the case, there are still ways that you can be really really successful in tech, and this is how you know. James did tell that there are some jobs that require it. But, there's so many more that don't. If you're looking at the job description, it will always say something like, Bachelor's degree are required, or equivalent experience. Literally what they're saying is, as long as you can do the work, you're fine. And this is so true there's plenty of people that, you know, especially great young talent that I've hired because they can do the work over even say a seasoned professional that has a degree, but couldn't demonstrate the skills

Lindsay Johnson
Great. Darrell sticking with you and hearing about your own career path and that trajectory is really interesting to hear because it wasn't the traditional high school to college pathway. And also hearing that a big company like Microsoft is offering those opportunities to students I think is really valuable. What else would students be surprised to learn about working in a digital tech role in Microsoft.

Darrell Booker
I mean there's a lot of a lot of different things kind of going back to the cybersecurity real quick. You know, we think of cybersecurity jobs as you know protecting and Julia mentioned this adversaries was really interesting. We have Microsoft has something called a red and blue team. So, if you happen to be on a red team, your day job is to literally try to hack, and then the blue team tries to stop you. So even thinking of, you know, typical cybersecurity roles, you know there's some things that's out of the box. But even in tech, you know, sales in tech is really big. We have a huge workforce that is actually actively, you know, working with other partners selling our technology and selling our hardware. You know, someone mentioned marketing, everything that you see you know company do this, a massive marketing machine behind it so whether it's the product, the hardware, events. We have huge teams that put on events.And then even thinking of some things out of the box that you may not think of, you know, looking at various industries we have a big sports arm. For those that you know watch the NBA Playoffs during the bubble in the screen up there and Microsoft Teams, you know, there was a whole group of folks working with the NBA on that. And then something else was probably very interesting to you all you know gaming, Xbox. We have a huge team that's doing, all gaming and Xbox related things. So I think one thing that I want to get across is, you can have even the smallest, you know, liking for tech but don't have to be the techiest of the techiest person to work in the tech industry.

Lindsay Johnson
That's great, and jumping over to the government sector which is something totally different now and I know I never used to think about tapping government very much, but Julia you mentioned that NSA has a high school program and it sounds like that you thought you went there yourself. Can you share a little bit more about that and how students can get involved if they're more interested in a public sector career and how they can apply tech skills in that way.

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Julia Lonczynski

Yeah, so I was in high school work study, back in, 2012, so I've been there for a while, I know I look really young, but I'm no, I promise. So, I had no really idea what to expect of me. I was an office assistant, so I was not technical at all. I am not technical to this day still. All of my experience that I have learned, I have a master's and a bachelor's, but I didn't really learn anything while going to school. I learned it hands on because I work in the HR related field. For the high school work study program we do offer the internship for juniors. The entire program will be throughout their senior year of high school so they'll go to school half a day, and then they'll come work and get experience. After the entire length of their senior year they do get opportunities to look for permanent employment. We do pay for them to go to school so that's a nice added benefit if you can't afford it yourself. Even if you get scholarships. You could also use us to your advantage so that you don't have to pay anything. Throughout their senior year, we also have two programs, it's our gifted and talented program as well as our Stokes Scholarship Program. The scholarships are a nice benefit. We offer up to $30,000 per year for them to go to school. We pay you while you go to school, physically, and then you come work for us during the summer.So you do get the school benefit and you also get the experience benefit. And if those are not interests, we also have programs in their college career. We have our cooperative education program, so they'll go to school for a semester and then they'll come work for us for a semester. They go on and off until they graduate. So you're going to get about two, two and a half years worth of experience under your belt compared to someone just coming in at an entry level, and you also have the same bachelors as them. We also have summer internships. Those are going to be from HR, all the way up to being a lawyer, so if you fall within those two ranges, there's an internship for you and it goes all the way up to their PhD.

Lindsay Johnson

What a cool opportunity to share. I wish there was something like that available when I was in high school and I like that. I see more organizations offering opportunities like this to grow work experience while you're still in school. So, you're graduating with something under your belt. Kicking it over to Mike and James, this question is for you because I know you hear from tech and tech adjacent employers. And a lot of them at once versus just working for one with one employer. Can you share more about some of the skills trends and also certifications trends that you see employers asking for both in our region, but then I guess for James at a much broader scale. And also, any unique skill sets, or qualifications that you see in the Capital Region that might be valuable for learners to know about

Mike Batt

The top certifications and skills that we're seeing are a lot of what we've just been talking about if you think about databases, Excel, Labuno and other databases of collecting data and storing data so getting really smart on that. I would say one thing that Julia's touched on and she's at the highest levels of that, which is security clearances, I'll tell you what I'm seeing most companies around here in the Washington, DC area. I know we're talking Baltimore to

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Richmond, but here in the Washington, DC area in Northern Virginia. It's so focused on the federal government. Both the the tech companies, as well as the government agencies that need folks to have those security clearances so I think it's really important to be thinking about that every day, when you're doing things it's like you know, because to get those security clearances there's there's a lot of things that you have to consider starting right now while you're in high school and not doing drug, and not getting arrested those type things that lead to, you know, getting that security clearance. What security clearance does is allows you access to work environments that gets you to those top secret type projects that the federal government has and tech companies have that are contracted to work with the government agency. So I'd say security clearances, the databases, cybersecurity and cloud, you know, any type of cloud. It's the Microsoft Azure and AWS cloud and Google Cloud. Those cloud certifications are key because that's where all the data is going.

James Stanger
Now I talk worldwide hiring managers, people who work with IT professionals every day and they will often kind of bemoan the fact that a lot of workers don't have the technical foundations that they need. I am a real techie, I love tech stuff. But the idea of do you understand how endpoints work by endpoints. You're supposed to see a mobile phone. Oh, there you go. Do you understand how it works. All of us understand how to consume one, but can you make the transition from being a consumer of it, to being a producer of it. Do you understand networking, networking protocols, do you understand those foundations because as you move into the cloud, which is very important, Linux, security, all those technical things - that technical background that you have, the foundational background, it's not that hard to learn if you apply yourself, can open the door to so many jungles. We have something called cyberstates.org, that'd be put together, along with cyberseek that we put together. If you go to cyberstates.org. You can see that CompTIA, NIST and Burning Glass, we put together research, real time research about security job roles that are working in your particular region. In this case, Baltimore to DC region. You can find out the job roles that are there, whatever job role you end up in it, whether it be something technical or non technical. That background and fundamentals of understanding technology is really important. And, I would also argue that understanding things, having to do with business intelligence. It's very important. And analytics of any kind. Darrell mentioned Red and Blue team. That is very interesting to me because it's all about security, you can focus on what it means to analyze what exactly is going on looking for trends, looking for anomalies. Finding actionable information and creating an accurate narrative as to what's going on. It's skills like that that are very much in demand and I think on some with various permutations and morphing in your career will continue to be in demand throughout your career.

Lindsay Johnson
Those are some very helpful resources. We're in our last 20-30 seconds here. This has been a really helpful informational panel. Does anyone have any last minute thoughts to share with the listeners before we wrap up.

Darrell Booker
I have something really quickly. When we are talking about going with a tech role, just get really specific as to what part of tech you're going to be comfortable with. Don't think that you need to know it all, you know, James was just mentioning networking, you know, talking about the cloud, application development, there's hardware, there's analytics, there's so many talks about cybersecurity, there's so many areas, you know. Pick the one that you know you really enjoy and just get really good at that one, you don't have to know it all.

James Stanger
Darrell, when you got started did you just apply yourself, you kind of fixated on one thing and then just delve right into it. That's what I did.

Darrell Booker
Yeah for me it was like I said, you know, Microsoft Access, this thing that doesn't exist anymore but it was really about you know I built this little tool to do some tracking and it happened to be a database behind it. That was my passion for app development.

Lindsay Johnson
That's so great. So I think there's anything you can take away from this panel today it's just how much opportunity there is. I want to thank you all so much for sharing more about your experience and what your education looked like and how it got you to where you are and how you're using it on the job today. We really appreciate it. Thanks for listening, on behalf of Capital CoLAB, thank you so much for joining the Digital Tech College and Career Readiness series.