Ramona Schindelheim, WorkingNation editor-in-chief:

You're listening to Work in Progress. I'm Ramona Schindelheim, Editor-in-Chief of Working Nation. Work in Progress explores the rapidly changing workplace through conversations with innovators, educators, and decision makers. People with solutions to today's workforce challenges.

Damon Crutchfield, Multiverse student:

I was always in the video games growing up as a kid. Growing up, I was always fascinated with technology. Seeing those worlds in the video games just kind of made me want to learn more and more about technology, but I never really could put a name to the field that was responsible for all of that until I turned like, 20 years old.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon Crutchfield is 24 now, and he lives in New Orleans, where he grew up. He learned a lot about technology and he's building a career in the field all without going to college. But he didn't choose tech at first. His dad is a firefighter and his mom worked at the passport office, and neither finished college. They wanted Damon to choose a reliable and stable field. One that didn't require a four year degree.

Damon Crutchfield, Multiverse student:

Straight out of High School, I just went straight into the Carpenters Union. It wasn't really something I was passionate about, it was just something I feel like I had to do.

Ramona Schindelheim, WorkingNation editor-in-chief:

But after two years in carpentry, the passion for technology still burned. So he took a bootcamp at the non-profit Generation to learn coding. That experience made him see that a career in software development was not only something he wanted, but something within reach. That led him to Multiverse, where he took a bootcamp in web development, and then a second one this summer in coding. Multiverse is letting him put his skills to use right away through an apprenticeship and giving him opportunities to be a leader.

Damon Crutchfield, Multiverse student:

When you first come in, you start a five week bootcamp and you learn the basics of JavaScript and web development. At the end of that five weeks, you and a couple of your peers, you build a project and then you do on-the-job training. So it's a kind of like a back and forth between learning and getting on-the-job experience. Just today, I got the opportunity to lead a coaching session. So I'll be responsible for coaching a group of students in software. And so there's opportunities like that, like peppered all throughout Multiverse. So you gain leadership skills, you gain communication skills from talking to other people. They give you projects to add to your resume. So you get a lot from Multiverse, not just hard skills, but also soft skills.

Ramona Schindelheim, WorkingNation editor-in-chief:

What sets Multiverse apart from many coding boot camps is the opportunity to work right away through on-the-job training. Damon has been putting his skills to use remotely at a Verizon office in east Texas, and is getting paid.

Damon Crutchfield, Multiverse student:

After leaving the bootcamp, you're partnered up with maybe two or three of your peers and you're sent off to go work on a specific project that Verizon has you to do. So right now, me and another girl from my cohort are working on the billing system at Verizon. So that's been a real good experience. I'm learning about best practices and more about the language JavaScript, other technologies that are big now. It's amazing, because I don't have to pay any money and it's my dream job, because I just think about all the things I can do from here. All the things I can create with the skills that I'm learning. That's what really motivates me.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon's even planning more boot camps, including C# and C++. That's a language used to create video games.

Damon Crutchfield, Multiverse student:

My ultimate goal is to have my own company, my own artificial intelligence company. Some company that I can make an impact on the world. I want to create a world where we don't use concrete structures to build things, we use more natural things so that we're not damaging the Earth, you know? And I think software is a good way to do that.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon says he wants to create video games so he can help other people envision the world the way he wants it to be.

Damon Crutchfield, Multiverse student:

That's one of the main reasons why I would like to create video games, because it's just a different art form. A way to express my ideas. And just like when I was a kid, show people the world of possibilities that can exist not only in software, but I mean, possibly extend even into the real world.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon says a background in software development would be helpful if he ever decides to pivot to a related career.

Damon Crutchfield, Multiverse student:

And I see a lot of jobs in the future, like maybe cashiers or things being automated. And I feel like since I'm in this field, I can be the one to program those automated machines for systems.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon's made incredible progress only a year after starting his first bootcamp through Multiverse. That's inspired other members of his family. His mother is now in the middle of a Junior Software Developer's bootcamp, run by Generation. And one of his brothers is at Code Academy.

Damon Crutchfield, Multiverse student:

Multiverse has helped me achieve that, because they are giving me the knowledge that I'm looking for. I'm able to communicate to them what my desires are and they place me in a field or in a position where I pursue those things. They also provide me with other connections that I need. They're a great company. I just see a bright future.

Ramona Schindelheim, WorkingNation editor-in-chief:

I spoke about Damon's experiences with Sophie Ruddock, the Vice President and General Manager of North America for Multiverse. She explains how Multiverse can be life changing for people like Damon, by exposing them to a variety of skills needed to forge a career, as well as on-the-job training through professional apprenticeships. Those are things traditional college programs aren't able to provide.

Sophie Ruddock, Multiverse VP, GM North America:

So often, education and work exist in silos and where an organization like Multiverse comes into it, is the ability to actually put the individual at the heart of our training. And what I mean by that is actually, if you are a young person and you are 18 and you're considering your options post-High School, and you're facing the cost of college, actually that is incredibly daunting. Particularly if it's not going to deliver on actually a career at the end of it. And so where professional apprenticeship is so exciting is the fact that this can be entirely debt free, and not just debt free, but free to the individual whilst earning a salary, coupled with actually on-the-job and applied learning. And what this means is sort of very specific skills-based training that focuses on actually the skills that employers need, and in Damon's case, software engineering. But coupled with the full time work experience.

Sophie Ruddock, Multiverse VP, GM North America:

So that actually everything that you are learning on program, you're able to apply almost immediately in your role. Learn, fail, try again, and then actually continue to build on that learning, through a very holistic and structured program that focuses on both the hard skills, those technical skills that you need to be a successful software engineer, but also what we call the durable skills, which are skills like communication, teamwork, conflict resolution, negotiation, leadership, which are all built into our curriculum as well. So that we're not just supporting Damon to become a future software engineer, but also to actually develop as a future leader in the workforce as well.

Ramona Schindelheim, WorkingNation editor-in-chief:

And how, how do you come up with the curriculum? Verizon in Damon's case, he's apprenticing there now, how do you guys determine what you need to teach him? Is this communicated to you directly from Verizon? And are you looking ahead too, to what kind of skills he may need in another job? Or is it very specific Verizon?

Sophie Ruddock, Multiverse VP, GM North America:

We are very market led with how we think about our curriculum development. And again, that's a huge departure from traditional College, which actually, the number one piece of feedback that you hear from businesses is that colleges are not set up to deliver the skills that you need for the workplace. And so how we build our curriculum is, we have an in-house learning products team which is made up at learning designers, subject matter experts, curriculum writers and product managers. And we work in partnerships with our business partners to understand actually where their skills needs are and therefore what a program could and should look like. Then we call it sort of backwards planning design, and that's really sort of the genesis of our programs. What are the skills, knowledge, mindsets and behaviors that would make someone successful in each of our individual tracks?

Sophie Ruddock, Multiverse VP, GM North America:

What we then do is we make sure that it's fit for purpose for Verizon. And so we spent a lot of time with them upfront understanding their tech stack, their needs of their managers, where their skills adapt live. Make sure that our program actually delivers on that. But where our program is so unique, is we are not just supporting someone to be a successful software engineer at Verizon. We are supporting them to be a successful software engineer, period. And that means actually understanding the full stack software engineering life cycle, understanding how to work in sprints, understanding Agile methodology, and also the ability to learn a second language, which means actually they learn the skill to pick up and code in new languages, which is ever more pressing when tech is evolving as quickly as it does.

Sophie Ruddock, Multiverse VP, GM North America:

To your point about jobs of the future, we talk a lot about supporting our apprentices and our curriculum is built in a way that supports our apprentices to become what we call T-shaped individuals. So they can be very deep in a specific specialism, software engineering and data analytics, but also have a broad enough set of skills to actually be able to progress within the organization. That's where the durable skills come into it, but also where we have one-to-one coaching that we build into our programming as well, where our apprentices see a coach every month for the length of their program and that's focused on their specific development.

Sophie Ruddock, Multiverse VP, GM North America:

And then the final thing is that we talk a lot about building this outstanding alternative to University. One of the ways that we look to achieve that mission is through our community, which is a global community of over 5,000 apprentices, where our apprentices have access to clubs and societies, sports teams, meetups, but also the sort of speakers that you'd expect to see on an Ivy League campus. All of that is designed to help our apprentices develop holistically and in the round rather than just in their specific track. And what we see actually is that upon our programs finishing, 81% of our apprentices actually land a new role in that company, take on more responsibility and or get a pay rise.

Ramona Schindelheim, WorkingNation editor-in-chief:

That's really great. As the apprentice goes through the program, so they're learning in the class room, they're learning the language, but importantly, they're learning on the job. How are you supervising that? Are they working on real projects or are these mock projects?

Sophie Ruddock, Multiverse VP, GM North America:

We're with them for the length of the program. So whilst a lot of programs exist and they provide upfront boot camp training, and then maybe a little bit of mentorship throughout the program where you check in and you see how someone's doing, actually for us, we are working hand in glove with both the apprentice and their managers. And so what this looks like on a day to day or month to month basis, is we're not just sort of checking in ad-hoc, but actually every single month we are spending time with the apprentices, both through formal learning, facilitated peer learning, and then that one to one coaching. But then also once a quarter, actually the apprentice, the manager and the coach get together as a three. And that's where they really look at ensuring that everything that the apprentice is learning is being applied on the job and vice versa.

Sophie Ruddock, Multiverse VP, GM North America:

So we're constantly creating these very quick feedback loops between what's going on on the job and what's going on in their learning. And we spend a lot of time upfront also making sure that our

apprentices are actually going into roles where they're able to apply their learning. So we don't have someone that's in an administrative role doing a software engineering program, for example.

Sophie Ruddock, Multiverse VP, GM North America:

And then I think the final thing, we are completely focused on ensuring that this is driving value for the apprentice, but also value for the business. And so again, so many programs see them being separated, whereas we are really focused on ensuring progression for the individual and ultimately driving genuine business value through, you know, you asked about mock projects. No, our apprentices are coming into actual roles and doing actual work. And we have some software engineers on our Multiverse team, they were shipping lines of code within their third week. And having had multiple apprentices on my team over the years, I can genuinely say they are some of the best team members I've had, promoted more quickly than graduates that have joined the team and have added more value than anyone else I've ever had.

Ramona Schindelheim, WorkingNation editor-in-chief:

Damon told me that he had a love of video games. So he liked that kind of tech-y world. Plus he also likes working on his own, working with a team, but working on his own so he can kind of get inside of his own head and then take what he has in there and put it out there in code and share it with people, which I thought was really a cool, both worlds, the inside world and the outside world that he was dealing with. What kind of person would succeed at Multiverse? What kind of curiosity do they need? What kind of skills do they need when they come in?

Sophie Ruddock, Multiverse VP, GM North America:

We firmly believe that this phrase, that talent is evenly distributed, but opportunity is not, is very true. And you only have to look at the boardroom and the executive teams of a lot of the Fortune 500 to see that that has very much sort of played out in reality. And so in terms of what we look for, we talk about sourcing for grit rather than grades. And we spend a lot of time on sourcing of high potential candidates to make sure that we really are finding incredible talent, that our employer partners aren't reaching through their traditional recruiting means. And the most sort of notable care characteristics that we've learned over the years, and we now sort of we've codified this and we now have a smart matching engine that really helps us to surface these insights are grit, conscientiousness, interpersonal skills, problem solving, and then ultimately, intent. How much do you really want this? And how you going to demonstrate that you are going to go after it?

Sophie Ruddock, Multiverse VP, GM North America:

And so the way that that manifests is in a whole host of different ways. We've definitely met a lot of bedroom coders in our day. Those that have been the type that have taken apart their computer, their neighbor's computer, their mom's computer, built it back together. And often they'll be the only person in their neighborhood that is actually the one that can be the fixer when it comes to IT problems. I worked with some amazing apprentices who worked night shifts at Amazon, two hours commutes each way, get back in the morning, then teach themselves Python, then take care of their younger sibling and then learn Mandarin in their spare time. And it's really those stories of individuals that have gone above and beyond to overcome the odds and really focus on learning agility and then grit that are apprentices that end up being the most successful. But if we rely on traditional hiring means of looking for those with a four year college degree, they would just be screened out again and again. And they're going to go on and be our future leaders.

Ramona Schindelheim, WorkingNation editor-in-chief:

One of the things that I love about what your mission is, is focusing on giving opportunity to groups of underrepresented people in the tech world. So someone like Damon, who maybe didn't have the money to do that four year college degree would have to work as well. Here he is making money and learning at the same time and has the opportunity of a job. How important is it to create the diversity in the tech industry?

Sophie Ruddock, Multiverse VP, GM North America:

I think it is the most pressing issue that is facing the tech industry today. When you look at actually some of the big challenges. Bias that's being coded, challenges around democracy and privacy. I think a lot of that stems from actually not having diverse perspectives around the table. I think it was Albert Einstein that said the definition of stupidity is doing same thing again and again, and not trying to do anything else to change a result. And I think that the tech industry have historically recruited from the same colleges, hired in the same way and have experienced outsize growth, but have also, are now paying the price in terms of the challenges that have come from having a very homogenous workforce.

Sophie Ruddock, Multiverse VP, GM North America:

And so I think it is incredibly important and I get very excited about the role friendships can play, because they not only can find new forms of talent, but they also solve this acute skills challenge that every tech company is also facing. In fact, I was talking to an executive at a large tech firm the other week who said, I could hire every single computer science graduate in the country and I would still have open heads. And you look at that and you couple that with challenges around equity and access, and you see apprenticeships as a brilliant way of being able to truly democratize access to these great careers, but then through their holistic support model and training, actually provide meaningful roots to then progress through these organizations.

Ramona Schindelheim, WorkingNation editor-in-chief:

You've been listening to a special edition of Work in Progress. Expanding opportunities in tech, creating a more diverse and inclusive workforce. This series is produced in partnership with Cognizant Foundation. For Working Nation, I'm Ramona Schindelheim. Thanks for listening.