

Transcript of “Mariama Feaster, Graduate Research Assistant at the University of Alabama in Huntsville.”

Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond

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Kelly Savoie:

Hello, Clear Skies Ahead listeners. This is Kelly Savoie, and I'm hoping you can take a moment of your time to rate and review our show wherever you listen to podcasts.

Kelly Savoie:

We have produced over 60 episodes and you can help us reach even more individuals that will benefit from the diverse experiences shared by our guests. Thanks so much for listening and I hope you enjoy this new episode.

Kelly Savoie:

Welcome to the American Meteorological Society's podcast series, Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond. I'm Kelly Savoie, and I'm here with Matt Moll, and we'll be your hosts. We're excited to give you the opportunity to step into the shoes of an expert working in weather, water, and climate sciences.

Matt Moll:

We're happy to introduce today's guest, Mariama Feaster, graduate research assistant at the University of Alabama in Huntsville. Welcome, Mariama. Thanks so much for joining us.

Mariama Feaster:

Hi. Thanks for having me.

Kelly Savoie:

Mariama, could you tell us a little bit about what got you interested in meteorology and how it influenced your educational path?

Mariama Feaster:

Okay. Well, it all started when I was seven years old and I read a book called Tornadoes. At first, I thought tornadoes didn't exist, so I decided to do a little research, and when I found out that they do exist, I just started reading more about it, learned how they form, where do they occur. It eventually branched off to hurricanes, thunderstorms, and lightning. Yeah. Since then, I fell in love with meteorology.

Kelly Savoie:

Did you pursue any, or did you even have the opportunity to pursue some courses when you were in high school? Or did you just decide once you graduated that you wanted to go to school and major in that?

Mariama Feaster:

In high school, I didn't really have any courses that geared strictly towards meteorology, but I have taken a video broadcasting class. I learned that being a broadcast meteorologist wasn't going to be my thing, because during high school, I attended a weather camp at Jackson State University and we had to do a ... We had to practice presenting the forecast as if we're a broadcast meteorologist, but I kept getting really nervous in front of the camera so right then it was just a no for me. From there, I decided to work behind the scenes.

Kelly Savoie:

Yeah, I don't blame you.

Mariama Feaster:

I figured that would be more beneficial for me instead of being on TV and talking to a live audience, especially those who are watching my every move. It's a nerve-wrecking moment for me.

Mariama Feaster:

But when I got to college and I actually became an undergrad at Jackson State, that's when I got into my major, meteorology. I wanted meteorology right off the bat. That's when I started taking classes, and that's why I began having about four internships during my time there.

Matt Moll:

Excellent. That's great. Can you walk us through ... What were some of the deciding factors in choosing to attend the University of Alabama in Huntsville for your masters of science and atmospheric science?

Mariama Feaster:

The biggest factor was choosing an advisor who shares the exact interests as I do. And behold, I found Dr. Knupp, because he ... because interests involve severe weather and instrumentation. Those two were the ultimate key factors for me, because I like to be hands-on as I learn more about weather.

Mariama Feaster:

When I emailed him at the time, he was attending AMS in 2019 and then from there, that's when I decided to meet with him. When I got there, he was attending one of the seminars ... the presentation, I mean. And once I saw him, he said, and I quote, "Hello, Mariama. I've been expecting you." And I think right there, that's when I knew I was in and he ... I was the chosen one, I guess.

Kelly Savoie:

Are you originally from that area and that was another factor that made that school interesting or the appropriate choice?

Mariama Feaster:

No. I'm originally from Georgia. Location, to me, didn't really matter much. But when it comes to weather, it's more so what can I learn from it? What can I grasp on? And what can I do hands-on projects with?

Mariama Feaster:

Because during my time as an undergrad, I learned a lot about myself and I learned a lot about what I can do in the meteorology field, because there's so many things you can do in the field. I noticed that I have excellent community outreach skills. I want to go out and help people learn more about STEM, meteorology particularly, because not enough people, especially in communities where they have trouble being resilient during these events, where they have lack of assistance.

Mariama Feaster:

So, me learning about severe weather and knowing many ways to help people was what really caught my eye and helped me develop a keen interest in "hey, instead of just learning about the weather, I should learn how to help people so that way they can be better prepared for these severe weather events."

Kelly Savoie:

Well, that's definitely an admirable choice in your pursuit of meteorology. Getting back to your master's, could you describe a little bit about why you were interested in becoming a research meteorologist and how your research for your master's thesis ties into that field?

Mariama Feaster:

This is by far the most difficult task I had to do out of all the research projects I had to do, because first they were giving me internships ... You know when you go to internships they have a list of topics and a list of materials you use and all you have to do is figure out the data and figure out the results. That's that, because everything else has already been planned. You already have the objectives, you already have the title, you pretty much already have the abstract. All you got to do is put all of it together.

Mariama Feaster:

This time I had to do pretty much, with guidance, of course, most ... I had to do all of it myself.

Kelly Savoie:

Right from scratch. Right from scratch.

Mariama Feaster:

Yeah. And it was like, "Oh. Oh dear. Oh no, what am I supposed to do? What is this? How is it?"

Mariama Feaster:

That was a big, major transition for me, from coming from an HBCU school to a PWI. In PWIs, you want a lot and you go deeper in the stuff than you would at HBCU schools, because due to the resources, they may not have what PWIs would. But it really does depend on the school, so in my case, there's a lot I'm learning from this school than I did from my time at Jackson State. I never knew that the GR2 software exists. I didn't know that.

Mariama Feaster:

I didn't know radar ... I knew radar exists, but I didn't know how to use a radar. The things that we didn't learn, that I'm learning now, we have to find our own way, and that's another thing Jackson State taught

us: independence. It taught us that when the resources aren't really given to you, you have to go out and find the resources yourself, and of course with people that you know. Jackson State taught me that, and that's what I'm doing. Everything from Jackson State, I'm applying to here.

Mariama Feaster:

Like I said, I do try to do ... I would try to do community outreach with it, and I figured by using that with my thesis, I can not only figure out ... My thesis is about meso vortices and the source of tornadoes within the QLCS. With that, once I understand how the meso vortices are developed and the environments that they do bring to the formation of tornadoes, that means with that information it should help forecasters have a better understanding on what the meso vortices are and how to look for them. They do happen really quick. Often times we're so focused on the QLCS, we sometimes forget about the MVs that have spawned, and then what do you know, they also help tornadoes form really quickly, which would be more dangerous because it happened so quickly in that certain area, you're like "What just happened?"

Mariama Feaster:

We did not know, we were so focused on the first thing, we forgot this one.

Mariama Feaster:

But yes, my goal hopefully at the end of my thesis is to start a conversation about meso vortices and how they can help produce tornadoes, and then use it as a way for forecasters and other meteorologists to understand more about meso vortices and how to better forecast these tornadoes, because some tornadoes do spawn out of nowhere.

Kelly Savoie:

Sounds like an interesting topic.

Kelly Savoie:

As a graduate student, how long do you have to complete a thesis? Do you have the entire time that you're in school, or do you not even get enrolled in your thesis research course until your final year? How does that work?

Mariama Feaster:

I have the entire time. It's hard to do, because I have classes to take, but right now I only have three classes left. I think at this point I am more able to get heavily into my thesis. But me, I'm a slow learner. I like to take my time learning things and I like to go at a slow pace. I tried a fast pace, and many times it didn't work too well with me, because with my autism I get flustered easily and then I'll go into a mental breakdown.

Mariama Feaster:

To keep myself in check, I feel for me it'd be better to slow my pace. At first, I was down on myself on me graduating, but then ... Since I started 2020, I was down on myself, "Oh no," then I wondered if I was able to graduate in four or five years, because I'm a slow learner. I go at a slow pace. Typically, you

graduate in two or three years, but I contacted many alumni and other graduates, and they all said the same thing. It doesn't really matter how long it takes you-

Kelly Savoie:

As long as you finished!

Mariama Feaster:

Yes, you finished. As long as you finished. That's really all that matters.

Mariama Feaster:

You'll get the same degree like everyone else, same signatures as everyone else, and you filled out the same requirements as everyone else. You're just going at a slow pace. Some are faster than others, some are slow. It just depends how you go at it.

Kelly Savoie:

Right, and it doesn't matter, because ... Me personally, it took me close to four years to finish my master's degree because I was working full time and I just couldn't fit it in. I wanted to do well, and if I was going to jam three or four classes in while I was working full time, that was not going to work out well for me.

Kelly Savoie:

I tried that in the beginning, and I said "No. I am going to crash and burn."

Kelly Savoie:

So it doesn't really matter. I agree with you, as long as you complete it and you do well.

Mariama Feaster:

Yeah, and I'm not working, because my fellowship requires me to solely focus on my research, so ... I'm not working, but it's just these classes are a lot, difficult. I'm just learning a lot of new stuff versus what I learned at my other school. I would ask my mentor slash friend Erica many times, "Wait, how do you learn this? We didn't go over this! This is really hard! He did not teach us this!"

Mariama Feaster:

She's like "Yeah, well that's grad school. You're going to go really deep into the things that you guys have learned. You have to figure out some resources and ask people for help," and that's what I've been doing.

Matt Moll:

I want to circle back just a little bit, we were talking about your community outreach and volunteering. I want to hear a little bit more about your volunteering and community outreach services will aid to STEM, specifically trying to inspire our young students to be future generation of scientists. Can you talk a little bit about that?

Mariama Feaster:

My other school has symposiums time to time, whenever we can, and what we did was invite some high schoolers who would be interested in the STEM field, and me along with other undergrads would share our experiences and some advices. I did that plenty of times, I was even a mentor for one student. Not STEM related, it was basically showing around campus for them to get to know the school and everything. That's what I did as an undergrad.

Mariama Feaster:

Now, as a grad student, we're currently having an REU internship going on, and what I did was volunteer to present my college journey. What I did was give a whole presentation on what I did at Jackson State and then what I did here. I told them about my tradition from Jackson State to here and gave advices on transitions to probably going to grad school and future internships that they may have planned for next summer.

Mariama Feaster:

They were very interactive, they asked a bunch of questions, like the difficulties, what are some difficulties I learned, what are some mistakes I made, and what were some favorite internships. A lot of questions.

Kelly Savoie:

That's awesome!

Kelly Savoie:

That's great that you had the opportunity to be able to do a presentation, and I'm sure they really appreciated it.

Kelly Savoie:

You had mentioned that you have autism. How has that helped or hindered you in certain situations in the field and what are some of the obstacles you faced during your educational journey. How have you personally handled them?

Mariama Feaster:

I have been diagnosed with autism since I was seven. I didn't find it out until I ... I didn't really know I had autism until I saw on my IEP back in high school saying "Autism Disorder," "Asperger's Syndrome," and I asked my dad about it. He told me, "Yeah, you've been diagnosed with that since seven."

Mariama Feaster:

I was like, "How come you never told me?"

Mariama Feaster:

I'd been walking around like social society or something, something that hindered me from interacting with my age group. When I was socializing with older people, it's fine. But once I'm with someone around my age, it's hard, because they have more experience than me, and I feel like a late bloomer. It's

hard for me to relate. It still is to this day, but now it's all about finding my own people, finding people who relate to me as much as I can relate to them. I'm not going to relate to the entire world, because there's some experiences that I never really went through, but I know in the past my autism has hindered me at that point for me in socializing with my age group. And other people. You get a little worse over time, where I'd be too scared to ask for help. I'd literally just sit there and struggle. I would not get social cues.

Mariama Feaster:

They're improving. They have improved as I got older. But based on my parents and friends, I have to grow out of that little hole where I'm able to see and acknowledge social cues. I still have trouble with it, but it's a learning process. I have to show it to me many times for me to actually get it, like "Oh, okay! Now I get it! Okay, yeah, that's definitely not okay. This is okay. I can do that. I should not do that." I have to write a lot of rules for myself, brush off the rules my parents gave to me.

Mariama Feaster:

My parents, they're really ... I think when they found out I have autism, there was an "Okay, we can't take this lightly. She has to learn, because when she gets older, she's going to have to learn to fend for herself, she'll have to learn to speak and learn when to ask for help." And also learn how to make friends ... I was having the hardest time making friends.

Mariama Feaster:

Meteorology, though, it has hindered me time to time, because we come to learn difficult materials, my brain would just be screaming on the inside, "Oh my god! I'm not getting it! It's frustrating me! I don't want to do this!" But with the help of my mentor, and I ask him for help, things start to slow down and I eventually understand stuff. I even reached out to find other resources that help me understand the materials I'm learning.

Kelly Savoie:

Well, it sounds like you've been very successful. You're now in graduate school, you're presenting for other students to help them out. It sounds like you've definitely learned how to handle it appropriately, so that's great.

Matt Moll:

And Mariama, you've mentioned also that diversity is very important to you in STEM and in the STEM field. Can you talk a little bit about that?

Mariama Feaster:

In the meteorology field, what I experienced, especially the huge transition from undergrad to graduate, each time I go to conferences and also focus on my own bits at the school, I would always look around wondering, "Huh, there's not enough of my people here in the field." And over time, I would hear how trying to get a master's, especially with people like me, because it's one thing to be a male in the science field, because males are a dominant species in the science field. I'm not knocking it or anything, but it does put females into slight disadvantage, because I've seen "Oh, it's okay for men. Not only are you stronger, you also could be smart, also can show your emotions more." Stuff like that. Well, I'm like

"Females can do it, too," but I guess over the years it's been deemed as unladylike or anything as if ... like we're still stuck back in the 40s or 50s, we're only looked at as caretakers, cleaners, maids, stuff like that.

Mariama Feaster:

I'm like, "No. I can do this. I can be independent as much as you can. I can learn this stuff just as much as you can."

Mariama Feaster:

As a black female with autism, I do see ... especially me, personally, I feel that I see myself as a high advantage, because I know some autistic people will have trouble getting to where I'm at right now, especially someone of my color and my gender, but to other people, they may see us as a threat. As a triple threat, I should say, where it can be hard for me to get out.

Mariama Feaster:

During my time as a grad student, I have felt like I did have imposter syndrome, like "Aw, crap, I'm not good enough. I'm not smart enough. These people know a lot more than me, why am I here? Why did you pick me?" My mentor reminds me, "They picked you for a reason. If there was no reason, you would not be here at all. So don't focus on that, just focus on what you came here to do and just do it."

Mariama Feaster:

There are times where I felt unnoticed, but I do remember taking time to myself, "Well, the reason I'm not being noticed is because I'm not being vocal. You need to be vocal. Make them hear you. Make them see you, because as long as you keep doing that, then eventually they'll be like, 'Oh, yeah, how about Mariama?'"

Mariama Feaster:

That's what I always try to do because they're so picky of other people they know, where I may be unnoticeable as if I'm not there. I'm the only black female in this program.

Mariama Feaster:

There's one black male, but there's one black female in my program. And there's only four girls in the research school, our majority are males. I noticed that in my group, I knew that other guys are more vocal and they would speak on a lot of stuff and everything. They were the ones who'd go first while the females would just sit there, be quiet, just listen. Right then, I irked my nerves sometimes, like "Hold up, I know a lot of you guys have something to present. You shouldn't have to wait. Just do it like they're doing."

Mariama Feaster:

I understand it's nerve-wracking, it's scary. Trust me, I get scared to do it all the time, but closed mouths don't get fed.

Kelly Savoie:

Exactly.

Kelly Savoie:

And I think we've all had that imposter syndrome at some point in time, but you're a great role model for others. People see you and they can relate, people who may have autism or some of the challenges that you've faced. They see you and they say, "Hey, I can do this." I think it's awesome that you're in a field that may be more male dominated, but you're just making your way, making people know you're there and you're heard. Good for you.

Kelly Savoie:

You're a member of UpStorm, which is UH's profiling storm team for operational and research meteorology. That's a mouthful. Could you tell us a little bit about that program?

Mariama Feaster:

What it is ... it is the organization where we have undergrad and grad students that be more involved in research. Undergrads aren't technically ... to even go out and do research with the faculty members, including graduate students, you have to be an upper ... one, have to have a certain amount of experience, and two, be an upperclassman. You have to be a certain age, too. It's part of requirements unfortunately. Some freshmen and some sophomores aren't there yet.

Mariama Feaster:

One of the students who were going here, they started a club for that for undergrads get more ... for them to learn more about upper air observation and also on-field employments. Me, as a graduate, I can already go out there and do research out in the field if I really want to, but there are times when I can't, so to at least help out a little, I would interact with them and release some weather balloons and look at the Skew-T and learn from what I'm seeing. That's what I do, and I even also do a little bit of outreach with them as well, where I present to whomever have workshops, like a resume, LinkedIn workshops, I've participated in that by showing my LinkedIn and explaining to them what I added on my page, what I thought would be most important for recruiters to know. That's my resume. I show my resume as well.

Mariama Feaster:

I believe ... Oh yeah, we also had the rocket city event last semester, which was really fun. What I did was, I was in one of my favorite internships and I also, with some help from another student, we also played an interactive game called tic-tac-toe ... it's done differently, where we ask questions and if they get it right, then whether it's X or O we put it on their spot, they claim that spot. If you go on, somebody gets tic-tac-toe.

Kelly Savoie:

Oh, that's cool!

Matt Moll:

Outstanding.

Matt Moll:

You've talked a lot about some tremendous experiences that you've had, and I'm wondering for our student listeners, what advice would you have for students that are looking to pursue different internships?

Mariama Feaster:

One, be yourself. That's the most important factor.

Mariama Feaster:

And two, don't be afraid to learn and try out new things. You'd be very surprised on how broad the student fields are.

Matt Moll:

Excellent.

Matt Moll:

We're so grateful for everything you've told us about your career, and before we go we always like to ask our guest one last fun question at the end of our show. For you, if you could meet one famous person alive or dead, who would it be?

Mariama Feaster:

It would be Michael Jackson. He was the one who introduced me to pop ... No, I learned from my ma who introduced me to a Michael Jackson song. From there, that's when I started unbinding my music tastes, where from pop music to hip hop, rap, I just learned to love and appreciate all genres.

Matt Moll:

That's great. That's fantastic. Excellent.

Matt Moll:

Well, thanks so much for joining us, Mariama, and sharing your experiences with us.

Mariama Feaster:

Thank you for having me, and it's been fun talking to you all.

Kelly Savoie:

That's our show for today. Please join us next time, rain or shine.

Matt Moll:

Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond is a podcast by the American Meteorological Society. Our show is edited by Peter Trebke, technical direction is provided by Peter Killelea. Our theme music is composed and performed by Steve Savoie, and the show is hosted by Matt Moll and Kelly Savoie. You can learn more about the show online at www.ametsoc.org/clearskies and you can contact us at skypodcast@ametsoc.org if you have any feedback or would like to become a future guest.

