Transcript for "Allison LaFleur, Consultant at RoVolus, LLC"

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. 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.

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 Emma Collins 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.

Emma Collins:

We're happy to introduce today's guest, Allison LaFleur, Consultant at RoVolus, LLC. Welcome, Allison. Thanks so much for joining us today.

Allison LaFleur:

Thanks for having me.

Kelly Savoie:

Allison, could you tell us a little bit about what sparked your interest in atmospheric science, and how it influenced your educational path?

Allison LaFleur:

So, in fourth grade I did a project in school. My teacher did a project on hurricanes and we were tracking hurricanes during that 2004 season, which was a very active season. So there was a lot for us to do in the classroom. And then we also took weather observations every day, like temperature. She had an old barometer that we played with, and from that point on I had said, "Oh, I want to be a meteorologist. I want to go into weather." And I just stuck with that through high school and into college. When I went to college, I went to what was formerly known as Lyndon State College. It was a really small school in Vermont and I was super excited and just kept going and decided while I was there to go to grad school and just keep getting a degree and it just naturally happened that way.

Kelly Savoie:

So, were you looking into lots of different schools for atmospheric sciences or did you want to just stay locally?

Allison LaFleur:

Initially I was looking just locally, partially because of money. Going to college is expensive, so I was lucky to find, there was a couple options in New England. I grew up in Massachusetts, so looked at UMass Lowell, Plymouth State and Lynden and ended up going to Lynden.

Kelly Savoie:

That was a good choice. Do they do anything at Lynden State for broadcast meteorology as well? Do they have the green screens and all those ...?

Allison LaFleur: Yes. They had electronic journalism arts. I think the name may have changed. The school has now also changed names. But they were putting on a live newscast every day and meteorologists got to go and do the green screen and stuff, which was really cool.

Kelly Savoie:

Did you ever get that opportunity to go in front of a green screen?

Allison LaFleur:

I didn't seriously, because I was more in, they tracked us, so I didn't want to go into broadcast. I was deciding to go to grad school, so I took extra math/chemistry classes. Well, I had plenty of friends, though, who did, and it looked very difficult to do.

Emma Collins:

So, what opportunities did you pursue inside and outside of school that you knew would be beneficial to securing a job in your profession?

Allison LaFleur:

So while I was in undergrad, I knew this would be helpful just overall, but now I've realized how helpful this position has been. We worked with the local Vermont plows for the state and we would provide them with forecasts for snowfall or ice. And in retrospect, that's been really helpful because I got to learn what it was like working with a client and not just talking to other classmates or other meteorologists and how to tailor forecast to meet whatever specific need they had. They were plows, they were obviously more focused on do we need to go out and plow snow or is it going to ice? Do we need to put out treatment on the road? They cared less about wind and the specifics of humidity and stuff like that.

And then besides that, when I was in undergrad and grad school, but especially grad school, I did a lot of outreach work and I did that at various levels. I worked with a local girl scout troop for a while, but I also helped put on events for the public or any little public event the department did I would help. And that just really gave me a good perspective on how to communicate what we were trying to communicate with people who didn't have a background in science or how to even just tailor conversations to what interested the person. So if they were interested in specifically severe weather, I could go talk in that

direction. Or if they were more focused on climate and they were a farmer, you would talk more in that direction. And that's where I got those skills.

Kelly Savoie:

So, when you first went to college, did you have something in mind that you wanted to do, a certain type of career in meteorology and then after you took part in some of these internships and opportunities, did anything change?

Allison LaFleur:

I think when I went into school, I just knew I didn't want to be on TV because I didn't like public speaking, which, that has actually changed. I'm much more comfortable speaking in front of audiences now, but I, at that point was encouraged to consider going to grad school. 'Coz I had a strong math background, so I did that. And as I went to grad school, I initially had wanted to go into education and teaching, which is still something I'm interested in, but as time went on, I was like, "You know what? I am interested in just seeing what else is out there." And when I was applying for jobs, was applying for just anything that sounded interesting and cool to me, which did include some teaching jobs, but also included some private industry and consulting jobs, which is what I ended up with.

Kelly Savoie:

Well, that's a good way to go about it. Have an open mind, 'cause you don't want to just focus on one thing and then miss out on a good opportunity elsewhere. So your doctoral thesis was on the ZDR arc changes prior to tornado Genesis. Could you tell us a little bit about that and your research leading to your final thesis?

Allison LaFleur:

So, that project came about, I was in a research lab. My advisor was very, her research focuses a lot on radar and radar with severe weather, so it was a good fit because others in the lab were looking at ZDR columns and I decided to look at ZDR arcs, which are like these regions of large raindrops in thunderstorms. And we came about this because we had a model that had a bunch of storms that were very similar, but some had tornadoes, some didn't. So we wanted to really look at the differences in radar to see how we could use the dual pol radar metrics to see if we could just help forecast. It kind of started as a, "Oh, can we do anything with this? Let's see where this goes." It turned out into this project. But another piece that influenced it was my lab, because it was a radar lab radar and severe weather focus, they would go out storm chasing each year.

So the hope was to collect data out in the field that we would then use to supplement the project and it would work well with basically the data we could collect could be useful for a couple of projects in the lab including mine. So that was one of the other reasons, and unfortunately didn't really get to use much real world data from chasing because of COVID. We didn't get to go out as many times as we'd hoped, but still was able to put together a really cool project. And then a reason the project kept going was at the same time, there was a student in Nebraska, Matt Wilson, who was putting together an algorithm that was automatically identifying a lot of these features in the storms, including VDR arcs. And so I was like, "Oh, this is the perfect tool for me to use so I can automatically identify them, remove that human

component if possible." And so a lot of things just naturally fell into place that led the door open to continue this project.

Kelly Savoie:

That sounds so neat. So for our listeners out there who may be wanting to pursue a PhD, about how long does it take to get through grad school and then to get your PhD? Is it a long time or does it depend on if you're doing it part-time or full-time?

Allison LaFleur:

It definitely depends. It took me seven years total. So I started and did two years for my master's in the same lab, the same advisor, and then the next five for my PhD and I switched projects. So my master's project was slightly different than my PhD project, so that added a little bit of time. But at least in my department and the people I know, it very much depends on coming from your background and if you're continuing a research project you've done from undergrad, you'll be able to go a little quicker than if you're starting something new in a completely new field. And then there's a lot of random things that'll pop up that will always affect it, like the pandemic that happened and added a lot of time to a lot of my friends or labs weren't working and things like that can just change the speed. But I would say that 7, 5/7 years is pretty typical for a PhD.

Kelly Savoie:

You did mention that the pandemic impacted how often you could be out in the field, but were you still able to go out storm chasing, gathering this data or did you have to wait for that data to come back to you for your thesis?

Allison LaFleur:

I had gone out before COVID, so I had been a part of projects beforehand. So I was fortunate not being able to go out the last couple years didn't really impact me much and I had other data from other sources that I could use for my project. So it was kind of like data we collected would've been a great addition, but not having it didn't really impact me, which I was very fortunate in that regard.

Kelly Savoie:

So how did you end up where you are today at RoVolus? In a private sector moving from academic to that private consulting position?

Allison LaFleur:

So when I graduated in May, and so I was also lucky that my closest friends were also graduating around the same time. So we had a lot of like, all right, we're all just sitting looking for jobs together. Which in a way was nice because it pushed some of us to look in areas we wouldn't have necessarily thought to look for a job. And so I had come across the posting for RoVolus and I was like, "Oh, this sounds kind of interesting." And it's Climate Focus, which is something that I also had always had climate change in the back of my mind and something I'm interested in communicating. So I applied and then when I heard

from them and I did a couple interviews with the employees and the head and stuff, and it was the weekend I was moving that I got the call saying they wanted to offer me the job. So it was a bit of a chaotic weekend. I am packing my truck to, or my dad drove with me, but from Indiana to Massachusetts and they're like, "Here, why don't you start in two weeks?" And it was good, but a little hectic.

Kelly Savoie:

So, could you walk us through a typical day on the job as a consultant?

Allison LaFleur:

So, a typical day is I will get up and get started and check my emails and one thing with the company is it's all remote, so people are all over the country and I am one of the only ones on the East Coast, so getting up in the morning, I tend to get something out of the way, right away because it's some quiet time for myself. But then the day will include just working on whatever project is deemed high priority at the moment. Sometimes that includes having meetings with, because RoVolus works with airports, so meeting with other coworkers and then people at these airports to talk about whatever project we're working on.

This can be things from quantifying the noise pollution in the area if they're changing flight paths for airplanes. And sometimes it's talking with the airports, it's like, "All right, where's this data coming from? How can we get this?" Or just talking about what assumptions we want to make.

Another common task is doing greenhouse gas emission inventory. So that includes a lot of data collection and primarily I've been like we get the data, I'll go through it and try to be like, all right, this list of gas receipts goes to these vehicles or these are for the generators or these are for whatever equipment. So that process can be quite tedious at times, but it's very making sure we're not double counting anything and doing that. And then so, I'm just doing whatever. It's different day to day, which is actually nice. But we do have these projects that are overarching for a period of time, but what I'm doing specifically might change. There's also quite a bit of writing, so I'll spend some time each day writing up what I've found.

Kelly Savoie:

Do you have certain clients assigned to you? Or how big is the company? Is it a large company or is it pretty small?

Allison LaFleur:

It's a pretty small company. I believe that there's four, about four full-time workers and then a couple similar amount of part-time workers. So while one person might be the primary contact for a client, we all will pitch in on all the projects because each person has a different area that they are the strongest in.

Kelly Savoie:

I think it's good that it's small because you get a lot more hands-on experience and you learn a bunch of different things because they're relying on a small workforce.

Emma Collins:

And do you enjoy the work from home aspect, being remote, even if you're not in an office communicating with your other coworkers, but moving from maybe an environment where you did have your fellow classmates around all the time, how has that change been?

Allison LaFleur:

So far, I've liked it and because I was moving, it was convenient. I didn't have to, when I got offered a job all of a sudden be like, "All right, I need to move somewhere different than I was planning." And it does give you quite a degree of flexibility, which is nice. So say, I need to run, I had an eye doctor's appointment last week, I didn't have to take time off of work to do that. I could just mark myself as away for a little bit, go to the appointment and then still work the full day. So I have enjoyed that.

I could see the social aspect is definitely different because I'm not seeing people day to day, but I, right now, am staying with my parents so I know people in the area. So that social piece that would maybe be missing, I am around people I know from childhood right now, so that is helpful. But one nice thing is the company had been remote pre-COVID, so they have figured out how to do the communication. We have a weekly meeting that we're chatting and everyone has each other's phone numbers and emails and teams and stuff. So we stay in pretty good contact with each other.

Kelly Savoie:

We're all really used to Zoom now, so you can see people that way.

Allison LaFleur:

Yes.

Emma Collins:

You touched on it where you said that having different projects every day was a good, exciting aspect of the job, but are there other aspects in particular have you found the most interesting as you're consulting?

Allison LaFleur:

I think one has been, so the company, since they primarily work with airports, it's much more airline focused, which is not what my background is in specifically. It's been really cool to see how some of this atmosphere knowledge can really be applied. It's very, very applied meteorology as opposed to some of that more theoretical that I had been doing in the past. And that's been really cool to connect the dots to be like, "Oh, we could use this idea from meteorology or that I read about somewhere and use it to connect to this airport's goal of reducing carbon emissions or something like that." So it's just been like that, it feels like I'm just learning about a whole new sector of the world, which is kind of cool.

Emma Collins:

And in a small environment like that, do you find that your ideas are very much welcome and that you get a chance to share your particular niche with these other people who have their own specialties and the conversation flows well?

Allison LaFleur:

Yes, definitely. Everyone's been really receptive to listening to what each other's thinking about and bouncing ideas off of each other.

Kelly Savoie:

Are there any challenges that surprised you about environmental planning services?

Allison LaFleur:

One challenge was that because data is coming from a lot of different sources, they're not all standard or what data is given to you can be quite different. So that was something I had, which in research data is not always in the same format or the same units and stuff like that, but there was some degree of uniformity that I didn't realize was there until I had moved into more consulting and you're getting this data from just very different people from very different places. So that was something that surprised me and I had to get used to, like, "Oh, this is not all going to look the same. I can't just do some automatic data analysis like I had done before. I'm going to have to go into the data first and manipulate it before you're really looking at it."

Emma Collins:

So, you have only been here for a couple months, but where do you see your career taking you or what do you hope to accomplish with this kind of a consulting background? Are you enjoying it? Do you think you'll head in that direction long-term or you had touched on that you wanted to teach, I think?

Allison LaFleur:

Right now I am thinking about…I've been enjoying it and haven't really, I've been liking it and I know having a consultant can take you in a lot of different directions. So I think having this consulting experience in conjunction with the atmospheric science, I could really get into a lot more of that environmental planning. And something that I've always been interested in is, as I mentioned before, climate change and climate change outreach. So that's an area I could see myself moving into is going in directions where it's helping either companies or people or whoever is really trying to combat climate change in whatever way they can, whether it's through their job or community or whatever. So that's, right now what I see, but I'm definitely open to still very early career, so open to seeing just what happens that really worked well for me with grad school, so got to keep that up.

Kelly Savoie:

So I will put a plug in for one of our certification programs, which once you get a few more years under your belt, I don't know if you're familiar with our certified consulting meteorologist program, but that

would be an excellent certification since you're doing consulting and if you continue with it for a few years, just keep that on your radar. It would be a good opportunity to apply for something like that.

Allison LaFleur:

Definitely.

Kelly Savoie:

What advice do you have for listeners who are hoping to find employment in the private sector? Did you find that there were certain skills that most of these organizations were looking for? Do you have advice on maybe coursework that students can take or any other advice?

Allison LaFleur:

One piece of advice, which I feel like is now just, when I started school was to always take a coding class. And I have found that having some computer skills has been very beneficial. Because even if I didn't have the specific program that a job was looking for, I would have, I don't know if like background knowledge that I knew I'd be able to either pick it up where they're like, "Oh, you have done this. Then picking up that project will be not too difficult."

But another big one that I have the last couple of years has been data analysis and data science and being able to deal with big data sets and big data, which when I was in grad school, noticed that was becoming much more and more popular and had really seen it when I was then looking for jobs is a lot of people, they care, it wasn't so much important what specifically you looked at, unless you're going into a research focused position, it was, can you use these programs and manipulate this data or analyze this data to get some sort of conclusion. It was really that data analysis skill.

Emma Collins:

Well, Allison, we're so grateful for everything that you've told us about your career. However, before you go, we always like to ask, I guess, one fun question at the end of the show. So what is your favorite hobby?

Allison LaFleur:

Right now, my favorite hobby has been, I've been getting into embroidery and cross stitching, which is very different and random. I used to be someone much more into, I had done ballet and jiu-jitsu and all these sports, but this one has been fun and it's very relaxing, which has been very needed over the last six months.

Kelly Savoie:

I was thinking that exactly. I was like, I would love to learn that because it just seems like if you've had a stressful day and then you're just sitting doing that and you're just focusing on that, it must be really nice. I've never done it. Is it a difficult thing to learn or is it easy to pick it up?

Allison LaFleur:

I found it pretty easy to pick up. I did know how to do basic sewing beforehand. When I had a hole in a pair of leggings, I could patch it. I couldn't do anything much more than that. But I first picked up a kit that was for five, six year old, and I was like, "All right, let me try this kit. If I like it, 'cause if I don't like the kid version, I'm not going to like it for adults."

Emma Collins:

That's a good way to refer to it.

Allison LaFleur:

And it was also on clearance for $2 somewhere, so I did it and I was like, "Oh, this is actually really fun." And using kits initially was definitely very helpful, pretty easy to pick up, fortunately.

Kelly Savoie:

Can you go, does it take a long time to finish something? Is it tedious that way? Or once you get the hang of it, did things go quickly?

Allison LaFleur:

The first ones definitely took longer than I probably could have done those projects a bit quicker now, but it really depended on what I was doing. So the first one I did, since it was for a kid, it was a heart and a sun, that didn't take me that long. But then, one that I've been working on now, it was like a cat with some plants around it, that was a little more intricate because you had do each individual leaf and there was a design on the pot, so that took a little bit longer just because you had to change the thread a lot more. There were more colors to go through. It really depends. So you can do a lot of fast projects if that's what you prefer, or I've seen some people do really intricate things that I know would take me probably months.

Kelly Savoie:

Is it just a needle, just a regular needle? Is that how you do it?

Allison LaFleur:

A needle and then thread. If you think of the thread that you, the most common ones that I've seen at least, still new to this, it's like that friendship bracelet thread?

Kelly Savoie:

Oh yeah, right.

Allison LaFleur:

Just that needle, cloth.

Emma Collins:

I will say, I've done cross stitching and it is a lot of fun. I do like it a lot. It's also a great way to listen to a podcast. May I recommend the Clear Skies Ahead podcast, but it's really fun. Because you definitely do get to disconnect and you're following a grid so you can focus on the podcast and start doing the motions pretty rotely. I absolutely agree. It's a lot of fun.

Kelly Savoie:

Well, I'll have to put that on my Christmas list. Thanks Allison, for describing it and giving me a little bit of positive feedback that, yes, I can actually do this. I will get the kiddy version first, as she suggested.

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

Allison LaFleur:

Thank you for having me again.

Emma Collins:

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

Kelly Savoie:

Clear Skies Ahead: Conversations about Careers in Meteorology and Beyond, is a podcast by the American Meteorological Society. Our show is edited by Johnny Lay, technical direction is provided by Peter Killelea. Our theme music is composed and performed by Steve Savoie, and the show is hosted by Emma Collins 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.