2023 AAS SETF Interview Transcript
Allyson Bieryla

During, it was unexpected. And after, I think of it as just a profound experience that is emotional and beautiful and just really unexpected, surreal.

My name is Allyson Bieryla. I'm an astronomer at Harvard. Back in 2017, during the Great American Solar eclipse, I managed the astronomy lab and telescopes that we use for undergraduate teaching at Harvard.

So I've been thinking. I started thinking about accessibility and how we can include students in all of our labs. That first came with, you know, my naive-ness like thing you just physical accessibility.

But then that kind of grew like thinking, okay, well, what if we have, you know, a visually impaired student or a deaf student? How do we incorporate these things?

I'm an observational astronomer, and so I teach students and people how to use telescopes and observe the universe. That reaction that you get sometimes from a student or a person that looks at a telescope and sees Saturn for the first time is just genuine joy and happiness and excitement.

And I don't think that should be denied to anyone. And I think that by including everyone and letting them know that there are ways to experience these events is important. And and especially with young children getting them excited about science and and that there is a space for them in the field is important

Right around 2017, there was a colleague at the Center for Astrophysics.name is one of the inside. She's a blind astronomer. She uses sonification for her work. And so she takes data and turns it into sound and everybody's like, you need to talk with her. And we had a meeting and and the project kind of began from there.

She asked the question, what are you doing for the solar eclipse? And so I was like, you know, we're taking… we were actually taking students out to Wyoming on a senior trip. And so she asked the hard question, So how do you accommodate a student with a visual disability?

We kind of started collaborating and talking about the idea, and we came up with this tool that we developed.

This is a device that we developed for solar eclipses. It's a sonification tool. So essentially it converts light to sound based on real data. Basically when a light comes in, we map that data to sound and its output. So it's a tool for blind visually impaired or those that prefer to experience an eclipse with sound.

This device we are donating free of charge to it. We're aiming to build 500. We've built half of that right now. People can request the device and we're happy to send it to them at no cost. We're also running workshops to teach people how to solder to help build these, so it's an important and easy and inexpensive and free tool to have an event to help make it inclusive forever.

I am a scientist. So I think of outreach as an important aspect of science and educating the public and engaging the public. I tend to think about such since my role is at a university, I tend to think about students first.

A big surprise of this project, because I was thinking about students, but it really turned into just more of a community and education outreach.

I don't think you can convince someone to do something, but I think you should encourage someone to not miss an experience that could change their life.

The eclipse that I saw–again, I went in with kind of low expectation, not knowing really what to expect. And, there were so many different reactions. People were cheering, people were crying, People were.. their jaws were dropped. It was just an experience unlike anything.

It's worth a few extra miles to drive to totality.