1. Could you tell me a bit about you and your field

I worked for the Center for Inclusive Design and Innovation at Georgia Tech. So I have a few different roles. I work primarily in the Information Communication Technology Department. I guess that is the best way to describe it. I work with sort of. We have a few different sorts of missions that we try to accomplish at the center where we're trying to. We'll work with, you know, mostly post secondary institutions. But you know, we also work with some corporate and nonprofit organizations as well, and they will come to us to have sort of, umm, accessibility needs assessed. So what I mainly work with is web evaluations. Or they're like web applications and test it with a screen reader and just general accessibility. Uh, things like that and give them recommendations on how to make it more accessible. I've also done a little web development myself. We have a product called the student accommodation manager. Uh, which is sort of like a postsecondary institution having to keep their records separate from their registrar, so anything dealing with disability has to be completely separate. So we sort of target smaller institutions where they're mainly working off paper, you know, paper records, things like that. And so we have this sort of lightweight, easy to use database that we sell to them and I'm a developer for that.

1. In your experience, what are the challenges visually impaired users encounter when using websites?

So to someone who can see the screen and can read all the text on it, you know it's there's a visual layout translating that visual layout into actual like structural layout and so that like uh using page regions. We call it landmarking. So like when you're developing a website you wanna lay out, you know you, you layout the page in a particular way where you know you've got, you know say your header, your footer, your body content, you know your body content may be separated into columns like article cards. You know things like that, that you don't always get translated to code. A screen reader will actually read that tag and translate it into a sort of informative structure for the user, but not all web developers will use the correct tag, so all the structure that they're building visually doesn't get translated into structure that a screen reader can understand. When you develop a web page you also like the structure of the content, so things like headings are very important, headings are how most people who can't, who are using a screen reader and can't see the screen. That's how they navigate, they will bring up a list of all the headings on the page and then go through all those headings a lot of times they if you're trying to describe to somebody who can't see the screen, how to find something on a web page, you'll say OK, find this heading. Go down like 3 lines and there'll be a link. So you know that would be like a general map to how to get to something on the web page for a blind person, or someone who's not, who's using a screen reader, can't see the screen, and then something like like you, you might have heard of this like, because there have been a push for certain applications to start using alt text on images. It's actually become sort of an issue for a lot of screen readers. People use screen readers because people are finding out about it, so they're starting to put all text on all their images, but not every image needs to have alt text on it. So like if you have a, if you're looking at a page and it's got a lot of decorative elements on it, people started putting all text on those little decorative elements. A person who can't see the screen doesn't really care what the decoration is, you know? So you can mark those up so that they're ignored by the screen reader, which would be preferable. So a screen reader will just ignore all the decks for developments. Somebody who's going to a web page to try and get information, and they're using a screen reader. They only care about the informative images, so the things that are included on the page that are actually providing information for a they cited user, you know, somebody who's umm, you know, like, if you're reading a newspaper article in the newspaper articles including. You know images you want to describe those images, but you don't really need to describe like a little curly cue that separates the different articles on the page.

1. Explain complications with mathematical notation and images

It's called MathML. Uh, the issue is that it was a standard that's been around for a long time and not a whole lot of people have ever used it. So it doesn't get included into the new browsers. So when you're trying to, uh or it'll get, you know, the it'll break or the way the browser interprets Mathml will break, and it takes a really long time to get it fixed. And it's also like the reason it's never been used that much is because it's just not that useful. It's been sort of like the best solution that's been come up with that, that someone come up with so far is to sort of, you know, mark up math the same way you would mark up, you know, a math equation the same way you would mark up a document or, you know, an HTML document to make it into a web page. The fact that it doesn't work a whole lot and that it's just not, it's really just not that useful. So what we've sort of come up with is a solution anytime we need to include something like a math equation. And like we're, I used to work for the department that does our E tech department that does umm, textbooks. So our solution for that was to make it make the equation into an image and then provide an easy mark mark up for the user or for the the school that we're that we're providing the book to to go in, find all of the equation images and then add the like a a description of the of the image in like sort of math speak uh so that it makes sense. Sometimes you don't like you within so we would normally do it as either a PDF or if it's a user who's blind using a screen reader.

1. Can you give me an example of how you use these different tools and methods to help overcome these challenges?

Uh, the main thing is to make sure the formatting like whatever format they're used to using, like not every like I you know, usually we would recommend a like a doc file for a for a student, but the depending on the screen reader that you're using and what they've used in the past, they may be more comfortable with PDF or they may be more comfortable with like an etext or like a I mean, epub, not Etext, but like it all depends on like what the students is just most comfortable with. So you always want to pair up the student with what they're most comfortable with. Sometimes it's worth sort of pushing a student to get them to try something that works a little better. Umm, but you know, ultimately they're going to do what they're most comfortable with. Whatever their format is, or they're most comfortable format is I guess is the best way to say that.

1. In what way do you evaluate the response of these students to the modifications that you've made?

So it's kind of hard to know when the students using something was actually useful for them that we just don't get that kind of feedback back. You know, we don't, we just provide it because we're just being requested by the Disability Service Office and we don't have a lot of the feedback that would honestly be really nice to have about what's working like we have to do it. We have to make huge undertakings to get feedback from students to to get information about, like what the formats were that work best for them, like the sort of the system we have come up with, of providing, you know, PDF and docs and things like that has been a lot of trial and error for a lot of for a fairly long time. You could have a student who is blind, but it's also a visual learner. So they don't actually end up using Braille a lot. You know, they might use tactical imagery or things like that, sort of like so because we have.

1. Could you elaborate on a time where you worked on either the Braille system or tactile graphics?

You have to actually go through training, so the most successful schools that we work with will have a student, whether they've, you know, been using it for years or whether they're just coming to it. Now, depending on their sort of skill level, they'll match the student with the technology that works best for their skill level. I mean, there is a lot of letter sort of overgeneralization where you know, OK, the student has ADHD, give them you know all text and and a you know and they text to speech software they're they're and you just never may just never show them how to use it and they're just expecting that because that's what you know that's what everybody says they should be using that they'll just you know they'll just get it and that's not always the case and like even with the students who are blind.