Amie DD

**Programmer, Cosplayer, and
Magical Unicorn Software Engineer**

Interview conducted by Jesse Niell
Images provided by Amie DD

In an interview with Verse Head Editor, Jesse Neill, Amie DD discusses
her 'superhero origin story', being a female in the male-dominated
tech industry, her workshops in Adelaide she recently conducted,
sexual fantasies in cosplaying, and how making costumes has
helped her programming.

Amie DD is a US-based software simulation developer, as well as a highly talented cosplay creator. She describes herself as a programmer, engineer, technologist, maker of things, and is a self-professed wizard. Amie DD is a passionate supporter of greater diversity in the tech industry, and is also a co-founder of ATAT Tech, an augmented reality, video game, and robotics development company in Texas.

Supported through a partnership between MOD. and Hybrid World Adelaide, Amie DD visited Australia to run a range of workshops that invite curious teens and adults to play, explore, and experiment with electronics in a collaborative environment. These workshops allowed participants to build objects to take home, as well as help Amie DD create her latest cosplay costume: the 'Space Junk Punk'.

How would you describe what you do?

I'm a software simulation developer. I write code and tell the computer what to do. Basically I'm a wizard.

Tell us how you began your career in programming?

"You are standing in an open field west of a white house, with a boarded front door. There is a small mailbox here."

Zork, a text based adventure game similar to the choose your own adventure books. Zork was this digital storytelling adventure where my choices impacted the outcome of the game. I remember thinking "wow computers are so smart", reality is they just have better memory than humans. A computer only understands what you tell it to

do. I think this is the 'superhero origin story' moment in my life where I realized that I could tell the computer what to do.

You also make highly intricate cosplay costumes. How has this helped your programming skills or vice versa?

Debugging is always something I struggled with and still do. Making a physical cosplay sword really helped my mind to slow down and see what I was doing step-by-step, and how detailed pieces fit together. I've applied that to my code. If my program isn't working or if there is an error, I try to break it down step-by-step to walk through the process.

I've also learned about sharing my progress of my costumes and code. I've learned more through failure than success ever taught me.

What is it like as a female in the gaming industry and as a cosplayer?

Most game programmers and designers got into the gaming industry because they liked to play games. They are fans too. They are fans of their work, so when they see people in the cosplay world bring their game characters to the real world through costumes and props they get excited.

When I was in college, I would specifically make sure I wouldn't wear makeup or do my hair, or anything that would pertain as being girly or over sexualised. I wanted to make sure I was taken serious in a room full of men programmers where beauty and brains had to be a divided thing.

The argument often comes up of inequality women face in the tech industry. How about instead of focusing on "this isn't fair", we start treating everyone as a human being.

As it is our sex edition, we have a couple of raunchier questions to ask if you feel comfortable answering them.

You mention in your bio that tech is sexy. How do you think our attitudes towards 'techies' and people who would traditionally have been referred to as 'geeks' have changed over the years?

Now all the geeks and techies are starting to grow up and we are now the 'adults'. We have become a generation defined by our hobbies. I had a discussion with a friend who is also a software developer during the week of a coding conference. I mentioned that I was homeschooled and I was the weird kid for liking *Star Trek* and electronics. People would make me feel shameful because "little girls weren't supposed to like those things". He said that by saying I was a weird girl that liked those things, I was classifying myself as the weird kid, to which my reply was, "but I am weird, and that's ok, there is no one I'd rather be than me".

Do you feel a sort of sexual confidence or empowerment in your cosplay outfits?

When you dress up in a costume as your favorite character, you have spent countless hours on that character costume. You are involved in the story and the details. You become that character through making that costume. That character or costume has had an impact on your life in some way. You get comfortable being uncomfortable, and you learn a lot of things about yourself along the way.

For example, I don't feel confident wearing heels, in real life or costume. The empowerment I get is more along the lines of "I'm proud of myself, I made this, I finished it, and I'm wearing it," that to me is a definition of sexy.

I get empowerment from learning new skills when making costumes, the research and development going into the project, and sharing the costume with others.

What crossover do you believe there is between cosplay and sexual fantasies?

Ha! I mean would you be asking me this question if it wasn't? One of my favourite game series is *The Witcher*. If you've never played the game (or read any of the books) just know that there is an option you have in the game where you can choose to have sex on a unicorn. I think there is a desire of what you are grown up to think is normal, and anything outside of what you normally pursue is a fantasy. I like the idea of fantasy, because in my mind it's a safe place where no one can judge my actions. We are curious by nature and I think if more people asked questions and discussed sex, cosplay, and tech in a way that people can feel comfortable, we could all learn to communicate more effectively and maturely.

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You made your first visit to Australia as part of the workshops MOD. and Hybrid World Adelaide organised, can you tell us a little bit more about these workshops and advice for those with similar passions to your own?

I taught six workshops, each workshop had a different focus from learning to solder, working with foam, making castable LEDs, basic robotics, 3D Printing, and then applying that new skill to contribute to my latest 'Space Junk Punk' costume that I wore (which is on display at MOD.). I wanted this to be an open-source cosplay project of sharing. So many people contributed to making this 'Space Junk Punk' come to life through these workshops. In terms of advice, I always encourage people coming to the workshop to ask questions, share their knowledge and stories. Everyone knows something you don't know, so ask. Don't be afraid to be a beginner!

What made you start doing these workshops and how long have you been doing this for?

I taught my first cosplay workshop three or four years ago, it was more of a no pressure community hangout, and that's what I try to incorporate in my workshops today. I started showing software developers how to work with hardware and I started to use some hardware in a few of my cosplay costumes and props. Friends, family, and strangers would ask me to show them how I made certain pieces

of my costume, or what tools I used, so I started sharing some of my basic code, schematics and BOM (bill of materials) on places like Hackster.io, Github and Twitter.

How do you believe we can encourage more women to join STEM fields?

I'm still surprised at how many people are unaware of what programming is. I gave an inspirational talk to elementary school teachers when they were introducing 'Hour of Code' to their classrooms for Code.org. I was surprised by one teacher who said that she didn't feel it was important to spend one hour a day, once a week, to teach the students programming.

"I'm not an artist or creative, I'm obsessive. Being obsessive has helped and hindered problem solving"

Advice from an Oracle (aka my college professor), he told me "if you can't explain what you are working on to a five year old, you don't understand it well enough yourself". You have to apply sciences, technology, engineering, arts, and mathematics to something that girls are interested in. Programming is about problem solving, it doesn't matter if the problem is how to sew the stitch on a purse, or the design to 3D print that purse. They are both challenges. Reality is everyone is terrible and doesn't know what they're doing from the beginning.

Finally, to what extent is cosplay and programming linked for you, and how can these creative outlets be used as an instrument of empowerment?

I'm not an artist or creative, I'm obsessive. Being obsessive has helped and hindered problem solving.

I used to tell people to work on something they're passionate about, but some people don't know what they enjoy doing, or don't have hobbies. Advice I give to those people is to say yes to doing more. Go to a new book store, attend that conference your friend invited you to. You'll find your adventure, it's out there.

I used to work in R&D (research and development) with daily processes of additive manufacturing and 3D printing. It wasn't until I used one of our work printers to make a sword for my costume that I realised how many ways I could apply 3D printing to a project that I enjoyed. Cosplay has taught me to finish a project. Like most engineers, I feel like I can keep working on my code, just change one more thing, it's the engineering predicament of never feeling that your code is complete.

Cosplay and programming have been ways to connect to the world, share what I'm doing, break it, and then improve it. ◊

Find more from Amie DD here:
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