Q&A: Dakotah Tyler on fashioning a science communication business

After an injury forced him to pivot away from football, Tyler had a chance encounter that ignited his curiosity about exoplanets.

By Toni Feder



Dakotah Tyler (Photo courtesy of Dakotah Tyler.)

As a kid, Dakotah Tyler was interested in one thing: sports. He attended the University of Kentucky on a full-ride football scholarship. Even after repeated injuries, he hoped to make it to the NFL.

But he tore his meniscus and ACL in 2012. It took a year or so, Tyler says, to realize that he wasn't going to be able to play football anymore. While he was recovering, he happened to watch the documentary *Cosmos: A Spacetime Odyssey*. At a time when he felt that he had "failed at life," he says, the idea that other planets are out there "both metaphorically and literally" expanded his mind to the larger universe.

Tyler did a Google search for "How do you become an astrophysicist?" and was on his way. He earned his PhD in astrophysics from UCLA in 2025.

He now runs his own science communication business, Star Kid Enterprises. His handle on social media is @dr.starkid.

The following interview has been edited for length and clarity.

Elaborate on how you got into astrophysics.

After I watched *Cosmos*, I found other astronomy documentaries and clips of astronomers talking on YouTube. I watched it all.

I graduated from the University

of Kentucky in 2014 with a degree in community and leadership development and then started community college classes to prepare for astrophysics back in Indianapolis, where I am from. I worked at FedEx, unloading planes at night. Then I would go home, shower, go to class, go home to sleep. Later I would wake up and do homework and study and then go back to the airport.

How much catching up did you need to do?

At Kentucky, my academic strategy was to do whatever required the least amount of my attention and energy. I was there to play football. I wasn't thinking about life after football or preparing myself for a particular career. I definitely wasn't thinking about what I was intellectually curious about.

When I decided to pursue astrophysics, I had a lot of catching up to do. I had to build my math and science foundation from the ground up. The first math class I took was college algebra.

I double majored in physics and astronomy at the University of Cincinnati.

What was it like being an older, nontraditional student?

I often felt a little out of place. It seemed like a lot of my classmates had grown up knowing they wanted to study physics. And many came from families with some connection to academia. I had been an athlete. I was seven or eight years older than my cohort. And I was often the only Black person in the room.

There was also a feeling that I was behind people my age. Some of my peers had graduated, started careers, or were playing professional football.

That was difficult at times. I had to focus less on what my path was supposed to look like and more on what was actually right for me. One advantage of being an older student is that I knew exactly why I was there.

What did you do after earning your physics and astrophysics bachelor's degrees?

I graduated in winter 2019 and started graduate school at UCLA the following fall. Because of COVID-19, much of my incoming cohort initially bonded virtually. I also developed a good relationship with my adviser, Erik Petigura, whose research on extrasolar planets aligned closely with what I was interested in studying.

My research focused on the evolution of exoplanet atmospheres, particularly atmospheric mass loss. I used the Keck and Gemini North telescopes to observe planets orbiting other stars, including through transits and radial velocity measurements. Those observations allowed me to study properties such as atmospheric composition and dynamics as well as planetary masses and orbital behavior. A major part of the work involved analyzing those observations and comparing them with theoretical models to better understand how these planetary systems evolve.

If there are countless planets throughout the universe, there may also be countless forms of life. The possibility that other beings could be out there having their own conscious experiences was one of the ideas that initially drew me toward astrophysics after my football career ended, and it is still one of the things that excites me most about the field.

Once you pivoted to astrophysics, what was your plan?

At first, I wanted to be a professor. But after about a year in graduate school, I realized I didn't want to go the tenure-track route. Faculty seem to focus a lot of their time on administrative stuff and things that for me would not be enjoyable.

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I also came to understand just how competitive the academic job market is. There are far fewer tenure-track positions than people earning PhDs in the field, which means most people who earn a PhD in astrophysics will ultimately build careers outside of that traditional path.

The more I learned about academia, the clearer it became that my interests and strengths were better aligned with science communication: sharing discoveries with the public, getting people excited about science, highlighting fascinating research that they might otherwise never encounter, and presenting complex ideas in a way that feels accessible and inviting to a broad audience. That was essentially how I had discovered astrophysics, so the idea of being able to do that for someone else appealed to me.

How did you get into science communication?

About five years ago, I started thinking seriously about all the different forms science communication can take, from social media and video to podcasting, public speaking, and writing. I did not know which avenue would ultimately be sustainable, so I wanted to plant as many seeds as possible.

What are examples of videos you have made?

A big goal is combating misinformation. Another—and this is tied to the first goal—is encouraging critical thinking.

If we think about quantum mechanics, there is the famous example of laypeople thinking that if you look at something, it changes. They will draw esoteric spiritual lines to consciousness and that sort of thing. I've made a video to explain that in physics, an observation is a measurement, and when you use a detector such as a photon on particles, it's the physical interaction that changes the particle.

A good analogy is if you test the pressure in a car tire, you stick a gauge into the tire. But when you do that, a little bit of air slips out, so that act of making that measurement literally changes the pressure. You can only ever know the pressure when you make the measurement, but you will inherently change the system by interacting with it.

I recently did an episode asking what an intelligent civilization might look like on a planet without trees. Our primate ancestors evolved in trees, which helped shape things like grasping hands and depth perception. Wood became a source of tools, shelter, and fuel. Timber was important for everything from buildings to boats. So, if you take all of that away, does technological civilization still emerge?

Are you able to make a living doing these things?

Yes. Public speaking has become a major part of my income. I speak on topics ranging from astrobiology and the search for life in the universe to new discoveries in astronomy and the power of curiosity and scientific thinking. I also give talks drawing on my own unconventional path from Division I football to becoming an astrophysicist, focusing on resilience, reinvention, and pursuing seemingly unlikely goals.

And I make money through brand partnerships and sponsorships, collaborations with organizations, podcast sponsorships, and advertising revenue from platforms like YouTube and social media. I have a book deal, so publishing is becoming another part of it.

I've tried to build several different revenue streams rather than depend on any single platform. The business is still growing, but I'm now able to do science communication full-time, which was the goal I set for myself when I was in graduate school. PT