

Where Are They Now: Danny Pavek

The [SciTechsperience Internship Program](#) helps STEM college majors find meaningful, paid internship opportunities in small Minnesota companies. But what happens to an intern once the internship is over?

To answer this question, we're starting a new series to highlight our SciTech Alumni and see how their experiences using the program has influenced their careers. Helping us kick things off is Danny Pavek, a Research Technician with the [Hunt Utilities Group](#) in Pine River.

Pavek used the SciTechsperience program to intern with Hunt Utilities in the summers of 2015 and 2016. The following year, he was brought on full time and is currently assisting them with several up and coming projects.

Last week, Pavek graciously agreed to reconnect with SciTech, to share his experience using the program, what it meant to him and the impact that it had on his current and future professional path.

Let's start with the basics, tell us a little about yourself.

Pavek: I'm a graduate of Gustavus Adolphus College in St. Peter, Minnesota. I got degrees in chemistry and environmental studies while I was there, and I'm hoping to run Grandma's Marathon this spring. I love the outdoors and I love that here, in Pine River, Minnesota, I get to spend as much time as I do in the outdoors.

What is your role at Hunt Utilities Group? What does your company do?

Pavek: I am a Research Technician here at Hunt Utilities. We are a sustainable building technologies and high performance house design research firm.

Talk to me about your experience using the SciTechsperience Internship program. What did you like about it?

Pavek: It was pretty awesome. I was thrilled to have the opportunity to work for a company that seemed to so closely align with my skills and knowledge set. It really seemed like a win.

What was the process like reapplying for your second summer internship through SciTech?

Pavek: It was very smooth. The second time was even easier since we were able to use some pre-dialogue to describe exactly what their expectations were for that position. It was great.

And someone from SciTech came to visit you during that time, right? What can you tell me about the site visit experience?

Pavek: The first summer, Becky [the program director] came to visit me and she made a nice write up about it. She's expressed that she really enjoys when she gets a chance to come up here because we do some pretty wild and audacious things. Generally people really enjoy coming and checking out what we're doing.

Can you relay how the site visit went and what it meant to you for her to come by to see how your internship was going?

Pavek: Seeing the article that was written up on my internship was really cool. Even before that point, I knew that the SciTech program was something that I would always be an advocate for. It is a really amazing program and it's cool to see that there are people working to connect students with these smaller businesses that don't have quite the clout that larger companies in the space do.

Talk to me about your journey from intern to employee.

Pavek: My first internship here, I was doing work on a deep winter greenhouse –a greenhouse that would allow us to grow plants all the way through the winter. Other things I do now include working on composting toilets, greywater processing systems, solar panels and house monitoring automation electronics. We also do work with energy efficient wall and window design and, more recently, I've gotten a little more involved with programing. That's something that my education did not include but my colleagues encouraged me to pursue.

On top of that, I live in a tiny house here on the campus, which is one of the buildings that we've built. It's one of the main test platforms for all of the pieces of technology that I mentioned before.

And when you say a 'tiny house,' are you talking about the HGTV-style tiny houses, or just a house that is small?

Pavek: It's 325 square feet. Honestly, this is a space that they decided to convert to a living test space quite a ways after the fact. Actually ...I'd call it a storage room on top of the building where I work.

So, when they built this house and said, 'Who wants to live here?' you just raised your hand?

Pavek: One of my colleagues kinda poked and kicked and said, 'hey, I think you should live there.' I had done a lot of the work to get the house prepared to have someone live in it and [my boss] expressed interest in my continuing to do that sort of work to continue to improve it.

So you've been with this house project from start to finish then?

Pavek: Yes. And it is definitely not finished (laughs).

What still needs to be done?

Pavek: The Greywater processing system is incomplete. One of the tricky parts about that space is that it's on top of the building that I work in which is a 15,000 square foot, really energy

efficient, really awesome facility, and there is some fear around me playing with water on top of it in a space where -if a leak occurred- it could be disastrous to the building below. So we're being very careful about the way that we do anything to do with water in that space. We're moving slowly on that but it's intentional.

Can you go back to the part where you said your tiny house is 'on top of the building' where you work?

Pavek: Yes. So, we have our manufacturing shop which is this massive building where we have the ability to create all kinds of stuff out of plastic, metal, 3D printing, wood etc. And that building actually has a living roof. So the roof has 8 inches of soil on top of it and that is my front yard. It's really awesome.

[Include tiny house photos here]

Going back to your time as an intern, tell me about an initial challenge that you had to overcome?

Pavek: There are two organizations here on campus. There's Hunt Utilities Group, and Happy Dancing Turtle, which is the non-profit resilient living side. I came in working in conjunction with Happy Dancing Turtle initially.

When I came into my internship, it was basically them telling me, 'We're really interested in building a greenhouse that we can use all winter. You should look into that and see what you can find. So that was a very broad topic to research and it afforded me so much flexibility with what I was able to do as an intern. It was a bit tricky, I guess, to really get comfortable with the amount of flexibility I was afforded. That's something that has definitely not reduced since I've transitioned to full time employee.

How was your 'promotion' to full time employee proposed?

Pavek: I approached my manager expressing interest in being full-time. Then, a few days later I had a conversation with the owner. We talked about what my goals were and what sort of timeline I saw for myself and all those really difficult questions like, 'where do you see yourself in five years?' And following that conversation we collectively decided that it made sense for me to come on full time.

And when he asked you 'where you saw yourself in five years?' did you answer 'living on the roof of the building'?

Pavek: (laughs) I don't think so.

What new responsibilities did you inherit with this position?

Pavek: So, during my second internship through SciTech, we worked on marketing for a specific product that we were developing. On the hardware side of that project we ran into a pretty major roadblock and I was encouraged to go back and do a kind of re-up on the market analysis that had been done to confirm where we were going with this and the amount of work it was going to take to overcome this hardware hurdle, whether it made sense for us to continue down that path.

The product we were exploring regarded the management of lead-acid batteries. This was at the time when Elon Musk was just coming out with the electric vehicles and the [powerwall](#) and all this cutting edge technology that was, at a price point, very similar to what we could afford or what we were hoping to achieve. Basically it was really cutting into our value proposition. And I was basically able to make the decision that this was not something that made sense for us to pursue further.

That was a major role that I was afforded. And since that point I've had the ability to express and be involved with the higher level strategic planning.

Those are things that I, as a person, am passionate about. I'm very interested in making sure that we, as a company, understand where we're going and why we're going to those places.

On that note I want to say, to other interns, 'express interest in the things you are interested in, even if you think it's above your pay grade. Because people will see that you're interested and engage you on those topics, and that can help you move forward as an employee.

That sounds like a pretty big deal, stepping into this influencer position as soon as you were hired. Can you talk about how that felt and how it might affect your motivation with the work you do?

Pavek: It definitely creates a feeling of empowerment within me; that I'm going to work every day knowing my voice is being heard, that my opinions are being respected and acknowledged. The fact that I have an impact on the bearing of the company and where we're headed is a really good feeling. It makes me feel like I have a lot more buy-in with the company and what's going on than I would if I was just a tiny cog in a big machine.

Talk to me about your future. Now that you've leveled up from intern to employee, what's next on your agenda?

Pavek: I know I have a lot of ideas about things that I'd like to be doing. Hunt Utilities Group is doing a lot of really good things. They hope to do so much to improve their community and the world that I feel that's a really good place for me to be right now to help them do that.

Can you talk about some of the upcoming projects that you're involved in?

So, right now the project that I'm spending the most time on is an electronic system called Hugnet CAN which is a home monitoring and automation hardware and software combo. It's going to essentially act as a string, connecting a bunch of devices that we want to implement into houses.

We're going to implement a bunch of our devices into a home for one of the employees here on campus that he's going to be building this summer, and project CAN is going to be the thing that connects all the dots in a system and make a house that functions as a holistic device, none of the pieces of the system are fighting against each other and they're all working together to create a more energy efficient and comfortable home to live in.

How do you go about making this possible?

So, the Hugnet CAN system is sitting on my desk right now. We're kind of in the boilerplate process right now where we're writing the code that is necessary to make sure all the basics work. Once we're able to do that we'll be able to implement that at the next level which is our intent for this summer.

Ideally, will you have everything in the house and testable by the end of the summer?

Yes. You put the word 'ideally' in there just as I would (laughs).

If you could offer some words of advice to interested students who are curious about the SciTechsperience Internship Program, what would you tell them?

Pavek: SciTechsperience affords people who are interested in internships the opportunity to be involved in smaller businesses. These small companies are also much more likely to have a familial relationship within their company environment.

This interview has been edited for length and clarity. If you'd like to read the full transcript, you can find it [here](#).

Pavek's experience is just one of many success stories that have come out of the SciTechsperience Internship Program. Are you ready to start your journey towards STEM internship success? Interested [companies](#) and [students](#) can learn more and [apply here](#).

Spring is prime hiring season for the program, but there are still lots of paid internships and wage matches to be filled.

For more information about SciTechsperience, please email Becky Siekmeier at beckys@mhta.org