

New Jersey Agricultural Experiment Station



AUGUST 2023

WATER PAGES eNEWSLETTER

Meet the 2023 Water Resources Program Summer Student Interns!



Allison Nevulis
Environmental Engineering

June 2023: What do you hope to gain from your experience?

I hope to gain a lot of experience in using AutoCAD. That's for one. Gotta get better at my AutoCAD skills. I really enjoy the design work so being able to do cool green infrastructure designs is like the best part I think. And I hope to do just a lot of that. The learning stuff. Anything they're willing to teach, I'm willing to learn.

August 2023: What experience/knowledge did you gain from this summer?

My vision of general infrastructure has changed. It's like looking at things that are like, "We should put a rain garden here. That should be picked." And stuff like that. You can't unsee that. I learned how to navigate the streets of Hamilton in a giant pickup truck. How to identify sites better and work as a team. And just to look at the world a little bit more critically.

If you could sum up your experience with one sentence, what would it be? *Rewarding*.

Alrick Rodriguez Landscape Architecture

June 2023: What do you hope to gain from your experience?

More knowledge about green infrastructure and plants in general. Knowing more indepth about the engineering that takes place behind these projects. Skills like construction



drawing. Normally, during the architecture program, you cover a lot of territory but not necessarily in-depth. Topics like engineering, architecture, planting design, social factors. With the internship, I'm hoping to learn about these topics more indepth. I hope to gain practical knowledge and I wanna learn more about what it takes to build and install rain gardens.

August 2023: What experience/knowledge did you gain from this summer?

I definitely gained a lot of rendering techniques and knowledge. I think more about plants too because I'm looking at the

plants that they're using for the rain garden. So I kinda know what works where, slightly better than I did before.

If you could sum up your experience with one sentence, what would it be? Variety of tasks, very easygoing, very educational.



Brendon Opilac Environmental Engineering

June 2023: What do you hope to gain from your experience?

Experience. (laughs). I hope to gain enough experience to land actual jobs because you do a lot of AutoCAD here, GIS. So once I know how to use those programs, I feel like I can go into other companies or even continue working here if I want to. But yeah, programs like that are really important to learn in engineering.

August 2023: What experience/knowledge did you gain from this summer?
Now I know how to use more technical stuff like GIS, AutoCAD, which is probably

important for the future. That's an important skill. I'm glad I learned.

If you could sum up your experience with one sentence, what would it be? "I've learned a lot that I can apply in the future that my past self would have liked to learn."

Brooke Belmonte Landscape Architecture

June 2023: What do you hope to gain from your experience?

So previously, building rain gardens was my first time gardening ever. It really opened up



my eyes to how many environmental issues there are. Specifically, with stormwater management. And through working this job the past two summers, I realized that civil engineering didn't have enough of that environmental factor for me. And I was able to work with some of the landscape architects here. So that's how I found out about the landscape architecture program at Rutgers. So I switched!

I'm gonna be doing more so landscape architecture focused things like rendering and hopefully helping more with planting plans and stuff like that. Which is really exciting because I feel like this job prepared me for landscape architecture before I even knew what landscape architecture was. And now through studying landscape architecture

as my major in school, it's helping me prepare even more so for this job.

I've only done landscape architecture for two semesters, and I gained more skills that I can now apply to these new aspects of the internship.

August 2023: What experience/knowledge did you gain from this summer?

So from this summer, I've really learned even more about stormwater management and rain gardens because we touched upon it a little bit in class. I know more so more like the science, biological side of it rather than just the civil engineering side. The more practical applications of stormwater management, I've learned just even more than I did before. I have a better understanding of green infrastructure in general, and its purpose and function.

Like cisterns, I actually know what they're used for now! And rain gardens. I just have a clearer understanding of the knowledge behind what I've just been practicing. Because I've learned it through the job, but now I just know a bit more of the details behind it. Rather than just like doing it, I know what I'm doing now.

If you could sum up your experience with one sentence, what would it be? *Life-changing*. I really found my passion through this job. Because I didn't even know what landscape architecture was before being a civil engineering student and starting this internship. And I fell in love with it so much that I decided to make my life about this. I wanna do this in the future. I wanna do... if not stormwater management specifically, something similar. It was very eye-opening.

Erik Lin Sociology

June 2023: What do you hope to gain from your experience?

I hope to apply different parts of my interests and knowledge to this program. And to learn



about a topic from different disciplines and how each side provides a unique angle: Science, politics, society, and also a sense of community concern.

I had also been developing interest in learning about New Jersey in various aspects; how there's such a variety of terrain and biomes, as well as different types of municipalities ranging from cities, small towns, to more rural environments. It made me realize how interconnected all these topics are. That when people plan their towns and cities, it connects with their awareness of the landscape and nature.

August 2023: What experience/knowledge did you gain from this summer?

I've learned about the importance of different programs like ArcGIS, AutoCAD, HydroCAD. How they all come together to provide different slices of relevant data while also being tied together. I've learned about the thinking and brainstorming process that goes into implementing Green Infrastructure. The concern over the water cycle, impervious cover, drainage, pollution, impact on communities, and so on.

If you could sum up your experience with one sentence, what would it be? "Rediscovery." From a young age, I knew intuitively that the environment and water were important. But I had no gateway or impetus to really understand. So it's been great to reflect and rediscover older parts of myself.



Haya Ahmer Civil Engineering

June 2023: What do you hope to gain from your experience?

Since this is my first engineering internship, I wanted to just gain actual real world knowledge and skills because obviously for the past couple of years, I've been studying engineering and all we learn is equations and how to use them, and you know properties and stuff like that.

But we really rarely get to see real world applications where we're like "Okay, this is like the actual problem, this is the actual solution, this is how you can use all this knowledge to create something. So honestly for me, I hope I can just gain some knowledge whether it be technical like the CAD stuff that we're doing or even just real world "Okay, We're going out to sites and we're looking at stuff. We're trying to figure

RAP and stuff like that."

August 2023: What experience/knowledge did you gain from this summer?

Well, there's so much. I feel like I've gained a lot of technical info, even with just the software and everything. But I think my biggest thing, and I was actually talking to Caitlin (Gilvey) about this the other day too: it's teamwork and working with other people is... it's different because we come from an environment with school where we're so into ourselves and we're always studying on our own. We have to take our tests on our own, to do everything on our own.

So to be thrown into an environment, where now it's perfectly fine and you should go and ask the other interns...like we're all working on this together. There's good and bad. Obviously, you get help from others. But sometimes, that means you have to compromise. Sometimes you have to work with the other person. Their mood and their temperament. Their work ethic. And you have to deal with that as well.

Which is something, again, we don't have to worry about when we're in school because we're always working on our own. Always just worried about our mood. We're not really worried about other people's moods as well.

If you could sum up your experience with one sentence, what would it be? "A life-changing experience." I think I'll remember it for the rest of my life.



Jonathan Liu Civil Engineering

June 2023: What do you hope to gain from your experience?

Through the interview, I learned that a lot of what they do is beneficial to these communities. So I think there's that sense of helping those communities. And also, learning the necessary skills for my future which include a lot of AutoCAD, site inspection, and surveying. And programs we'll probably use a lot in the future.

Other than that, I believe that the professor (Obropta), he said something about instilling green methods or ideas into your company so once we reach the higher position, we'll be more wary of certain practices. I think one of them was "water next to construction sites." You have to be wary of mud and its

contaminants. So yeah.

August 2023: What experience/knowledge did you gain from this summer?

Firstly, I'd say green infrastructure the most. I think Chris (Obropta) said at

the beginning that they wanted to cultivate us into being more aware of this kind of stuff. When we eventually reach higher positions, we'll hopefully be more aware of protecting the environment and not contaminating certain aspects of nature.

And other than that, a lot of programs. I think I learned a bunch more about AutoCAD and new programs such as ArcGIS and HydroCAD will probably be helpful for the future. And then, also equipment, handling that out in the field, those types of experiences.

If you could sum up your experience with one sentence, what would it be? Gonna need a minute. But I'll say: "Interesting and demanding experience that incorporates a lot of variety within a great community."



Payal Khatri Environmental Science

June 2023: What do you hope to gain from your experience?

I wanna learn as much as I can to be able to

I wanna learn as much as I can to be able to do better in my future job.

August 2023: What experience/knowledge did you gain from this summer?

I have learned a lot about AutoCAD, about green infrastructure in general. And I think I'll definitely apply it to my coursework. Sometimes, we have papers that you get to

choose what you want to write about. I think this has really inspired me. I think I would pursue thinking about this topic and learning more about it after. But yeah, I feel like I've learned a lot.

If you could sum up your experience with one sentence, what would it be? Oh that's hard. Okay, let me think. "A fun time accompanied by a lot of learning."

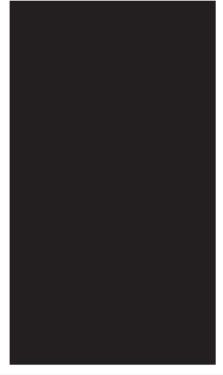
Sarah Malik Environmental Science

June 2023: What do you hope to gain from your experience?

I'm pursuing a certificate in geomatics so I really want to learn more about how geomatics can be used in this position and I want to learn more about AutoCAD and just how field days work. Just excited to learn.

August 2023: What experience/knowledge did you gain from this summer?

A lot of AutoCAD knowledge, I feel like I've gained. Because I've never used it in the past. We use it so much in the office that I've



learned a lot about it. And I learned a little more about GIS too.

If you could sum up your experience with one sentence, what would it be?

"Very fun and a diverse set of tasks" is how I would describe it.

Calling all Green Infrastructure Champions!



Green Infrastructure Champion Continuing Education Opportunities

Event Date:

September 14, 2023: Pocket Wetlands for Homeowners (Dr. Roy Messaros)

September 28, 2023: Native Plants for Green Infrastructure Projects (Susan Tarr)

October 12, 2023: Floating Treatment Wetlands: Community-Based Crandon Lake Restoration Project (Nathaniel Sajdak)

October 19, 2023: Living Shorelines for New

Jersey (Dr. Thomas Herrington)

Event Time:

Each class will be held from noon to 1:30 pm

Event Location:

Via Zoom (A zoom link will be provided the week before the class)

CLICK HERE TO REGISTER!

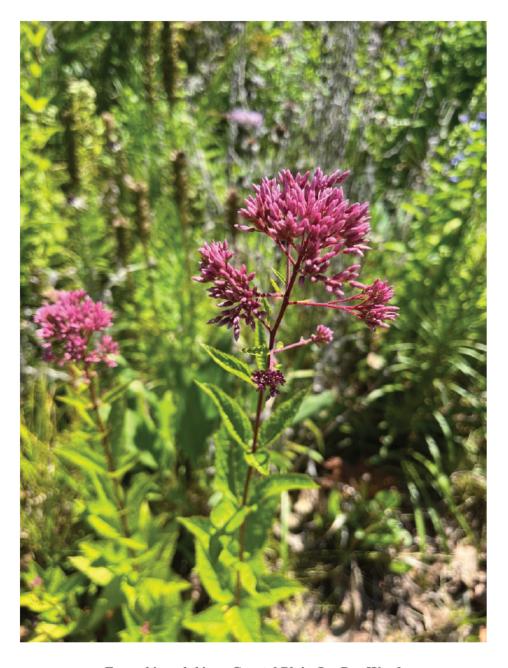
Rain Garden Native Plant Spotlight ~ Coastal Plain Joe Pye Weed (*Eutrochium dubium*)

Coastal Plain Joe Pye Weed is a pollinator-friendly flowering perennial that adds a showy brush of pink to the late-summer rain garden. *Eutrochium dubium* has a compact and upright growth habit, pairing well with native

grasses, and it can reach 3'-6' under optimal conditions. Preferring the sunny, moist sites found in Atlantic coastal plains and wetlands, it is relatively tolerant of a wide range of conditions, making it an adaptable choice for a rain garden.

For more information:

https://plants.ces.ncsu.edu/plants/eutrochium-dubium/



Eutrochium dubium, Coastal Plain Joe Pye Weed [Photo credit: Chris Perez, RCE Water Resources Program]



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