



SciTech
INTERNSHIP PROGRAM™
2021
Annual Report

Building Minnesota's STEM Talent Pipeline

The SciTech Internship Program connects college STEM majors - our state's future problem solvers - with valuable on-the-job learning opportunities in small, for-profit Minnesota companies. Funding provided by the Minnesota legislature provides a fifty percent wage reimbursement of up to \$2,500 that helps companies boost their productivity and invest in their talent pipeline.

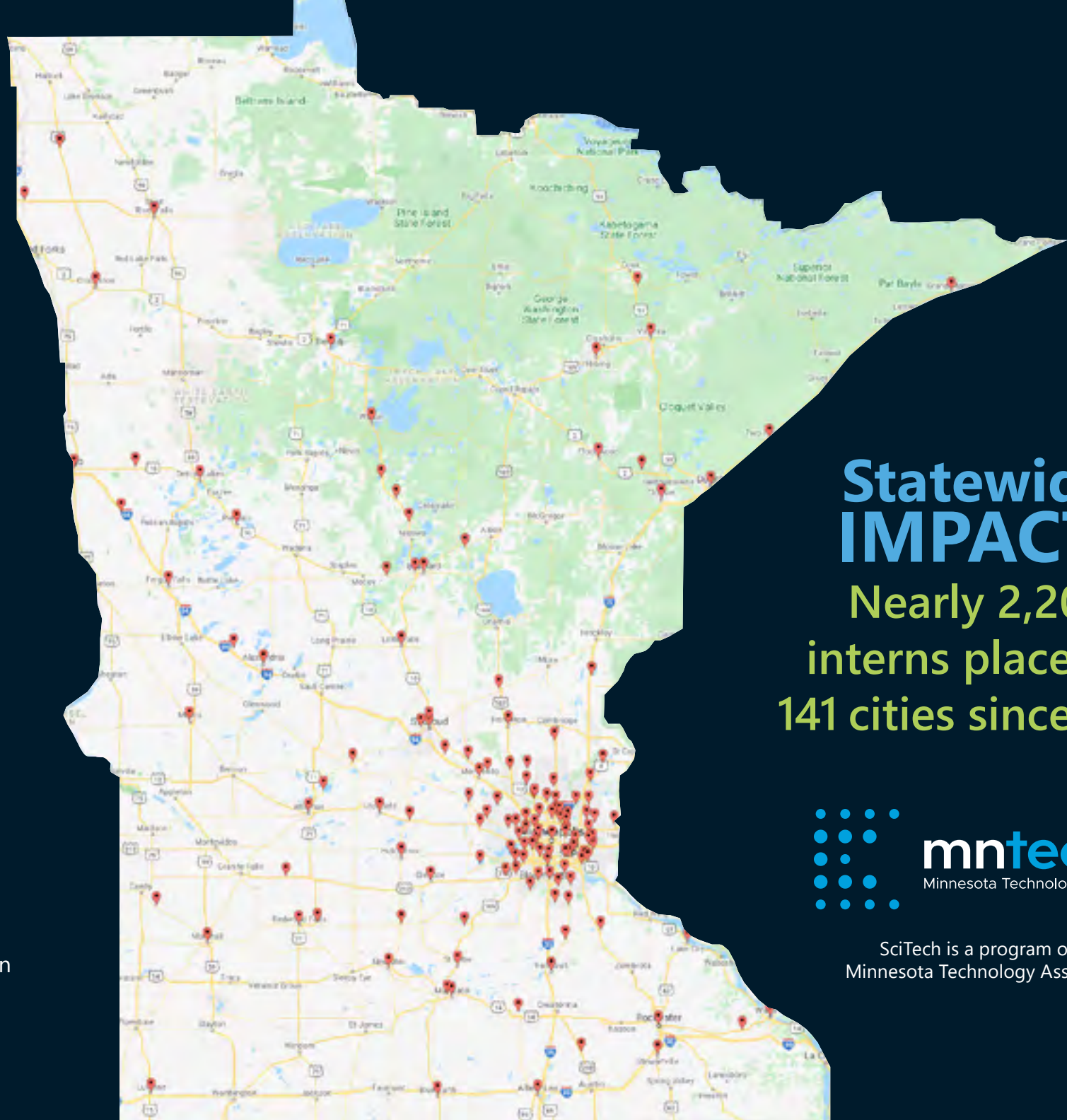
SciTech internships provide students with high quality opportunities to apply their classroom knowledge to real business challenges. Each position provides top-notch hands-on experience for the student while also helping small businesses get work done and build their future STEM talent pipeline.

Students:

Must be a current college student; at least 18; a Minnesota resident or attend college in-state; 2.5 or greater GPA; half way through a STEM degree; and eligible to work off campus in the U.S.

Companies:

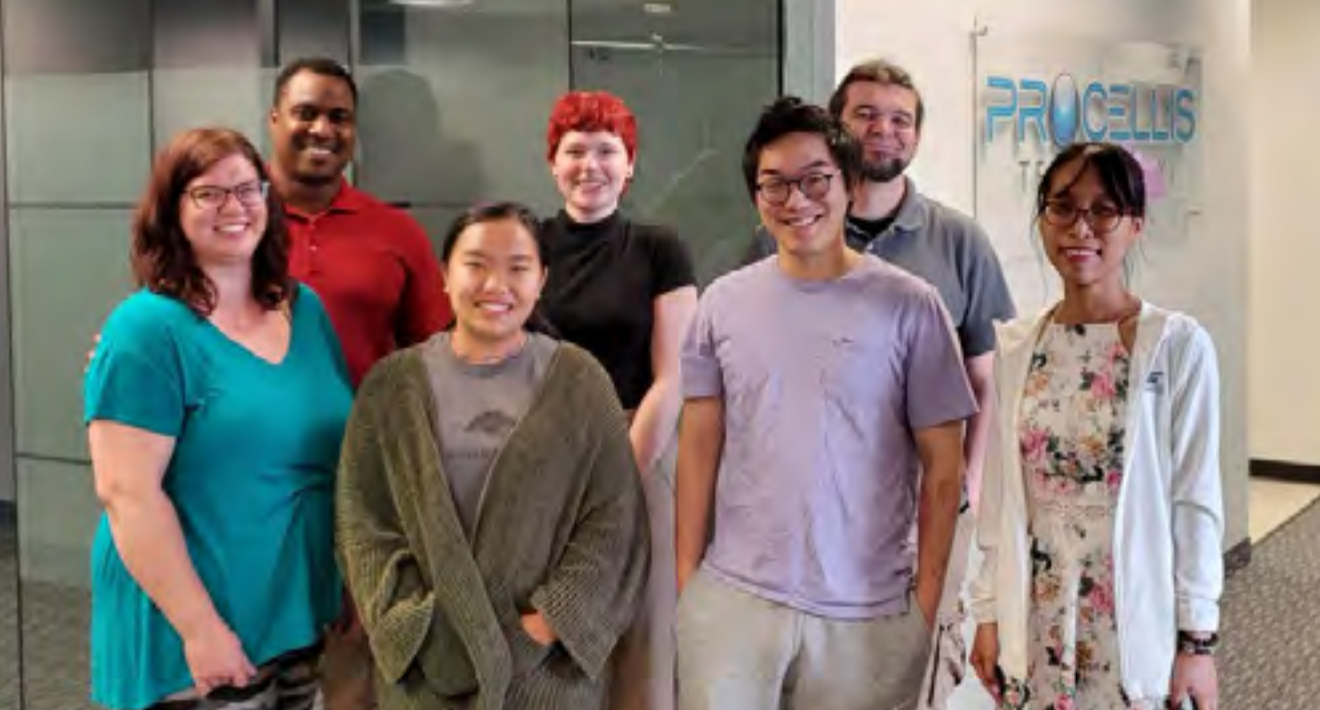
Must be a small, for-profit company with a physical presence in Minnesota; fewer than 250 employees worldwide; in a qualifying industry (see the full list on page 4); and offer a paid STEM internship.



**Statewide
IMPACT:**
Nearly 2,200
interns placed in
141 cities since 2012



SciTech is a program of the
Minnesota Technology Association.



Procellis Technology: Front row: Beth Taylor, Shouayee Vue, David Kong, Julia Ha. Back row: Damian Young, Halley Paulson and Nate Haleen.

SPOTLIGHT: Interns Gain DevNet Certification with Procellis Technology

As an information solutions company, Procellis Technology provides IT and IoT support for small businesses and the public sector. They're dedicated to two things: improving their customer's outcomes and strengthening their team with professional development.

"We believe in continual improvement, so we're constantly investing in everyone, every staff member, to make sure they're on top of their game with technology, which in turn gives better results to the client," explained Procellis' CEO Damian Young.

Procellis hired six STEM students through SciTech. When Young considered how to manage so many interns, he decided to set a goal for them: to become a full software automation team and get DevNet certified.

"They're getting to take with them a certification that has significant value and shows that they are capable," Young said.

Procellis' newly certified DevNet team consisted of Julia Ha, a computer science major at Normandale Community College, Nate Haleen, an information technology major at Inver Hills Community College, David Kong, a computer science major at the University of Minnesota, Halley Paulson, a computer and data science major at the University of Minnesota-Morris and Shouayee Vue, a computer science major at Macalester.

Though their internships relied heavily on collaboration, each student gained unique experiences as well. Ha learned about API and automation. Haleen spent most of his time working within IT, strengthening his programming abilities. Paulson worked IoT development. And Vue, after recently completing a course specializing in IoT is now in talks with some of Procellis's partners about automating their workflow.

Building confidence on the job

Looking back on this experience, each student had their own takeaway.

"The teamwork has been awesome," said Ha. "My background isn't in networking, so at first it felt a little overwhelming. But as I went along, I realized that each person has different strengths to contribute to the team."

"I didn't feel knowledgeable enough before this," Paulson admitted. "I was surprised about how well I understand certain things and I can actually explain things properly to people to help them understand it."

"This is nothing like what I imagined; this opportunity has been much better!" Vue said enthusiastically. "I've been so lost in trying to find my place in this career. I'm super grateful to be able to have guidance, support from the whole company, and given the chance to grow."

Focus on inclusive recruiting

SciTech conducts extensive outreach to Minnesota's STEM students, particularly to women and students of color. In addition to attending dozens of career fairs, SciTech engages with more than 20 student groups, prioritizing those that support students underrepresented in STEM fields. SciTech also partnered with the North Star STEM Alliance to host four QuikSkills workshops to help students gain the confidence and skills they need to succeed in the job search process.



Applicant Summary

1,585 STUDENTS PARTICIPATED

61% were students underrepresented in STEM in 2021
of APPLICANTS (women and students of color)

Applicants by Ethnicity: 43% BIPOC, 57% White



Applicants by Gender: 33% Women, 66% Men, <1% Non-Binary



Applicants by Student's Permanent Residence:

36% Suburbs, 24% Greater MN, 22% Out of State, 18% Mpls/St. Paul



Applicants by College System:

42% UMN, 20% Mn State, 18% Private, 9% Out of State, 1% For-profit



236 EMPLOYERS PARTICIPATED

20 was the median size of employer applicants
based on worldwide employee count

74% of applicants had fewer than 50 employees worldwide

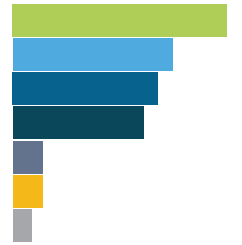
Applicants by Geographic Location:

38% Suburbs, 35% Minneapolis/St. Paul, 27% Greater Minnesota



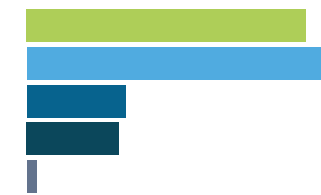
Applicants by Industry:

IT/Computer Technology	29%
Biotechnology and Life Sciences	22%
Mining, Materials, Mfg & Processing	20%
Engineering Services	18%
Agriculture, Food and Forestry	4%
Fuels, Energy, and Energy Mgmt	4%
Aerospace and Defense	3%

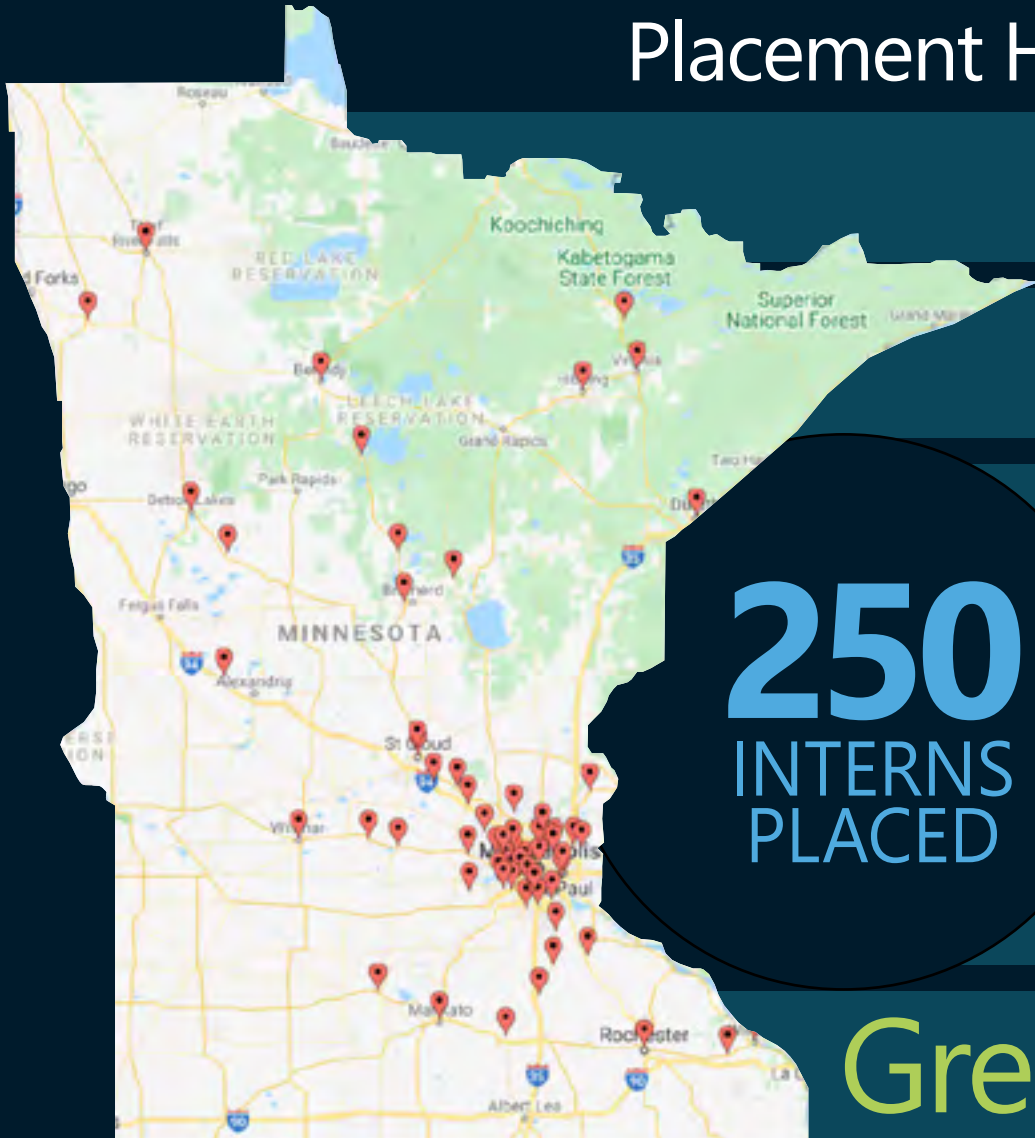


Applicants by Full-time Employee Count (FTEs):

36%	1-10 FTEs
38%	11-50 FTEs
13%	51-100 FTEs
12%	101-200 FTEs
1%	201-250 FTEs



Placement Highlights



47% of hires were students underrepresented in STEM in 2021 (women and students of color)

98% of students completed their internships

\$18 was the median hourly rate paid by employers (\$34.00/hour was the highest. \$12.50 was the lowest.)

24 interns were hired full-time by their employer. 17 more were asked to continue part-time.

23 was the median number of FTEs at companies that hired an intern

Great ROI For every dollar the state provides in wage reimbursements, private companies contributed in \$2.81 in wages paid.

\$1.00

\$2.81

Cities hosting one or more internship:

- | | | | | | | | | |
|-------------|--------------|---------------|------------|-------------|--------------|--------------|-------------------|-----------------|
| Angora | Brandon | Dassel | Edina | Hibbing | Medina | Pequot Lakes | Shoreview | Walker |
| Arden Hills | Burnsville | Deerwood | Excelsior | Hopkins | Minneapolis | Perham | St. Cloud | Waseca |
| Baxter | Cannon Falls | Delano | Faribault | Lewiston | Minnetonka | Plymouth | St. Louis Park | Wayzata |
| Becker | Chanhassen | Detroit Lakes | Farmington | Litchfield | Monticello | Ramsey | St. Paul | West St. Paul |
| Bemidji | Chisago City | Duluth | Fridley | Mahtomedi | New Brighton | Rochester | Thief River Falls | White Bear Lake |
| Blaine | Clearwater | Eagan | Hamel | Mankato | New Ulm | Sauk Rapids | Virginia | Willmar |
| Bloomington | Crookston | Eden Prairie | Hanover | Maple Grove | Northfield | Savage | Waconia | Winona |

Placement Details

STUDENTS



Hires by Intern's Permanent Residence:
38% Suburbs, 29% Greater MN, 20% Out of State, 13% Mpls/St. Paul



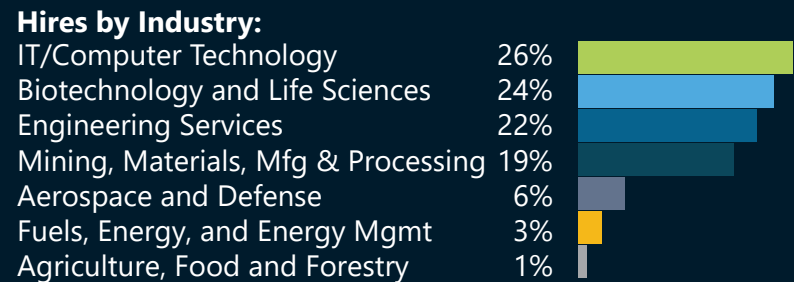
Hires by College System:
45% UMN, 26% Mn State, 14% Out of State Colleges, 14% Private, 1% For-profit



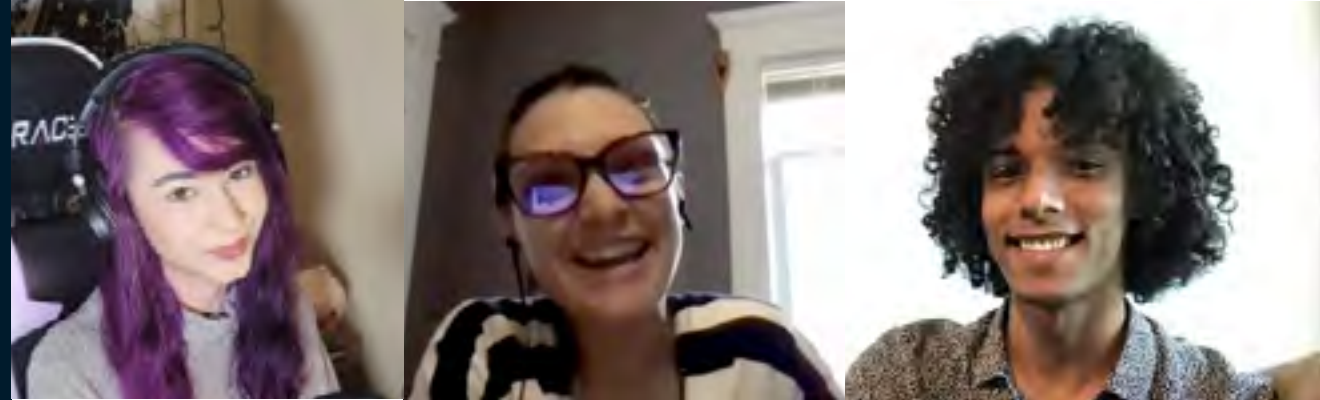
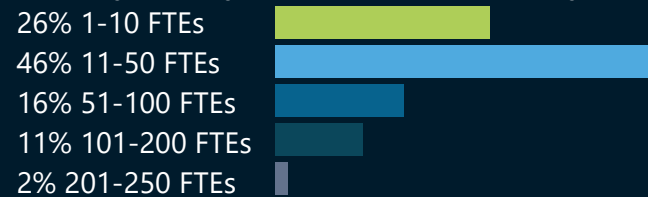
Hires by Geographic Location of Employer:
37% Minneapolis/St. Paul, 36% Suburbs, 27% Greater Minnesota



EMPLOYERS



Hires by Employer Size (Full-time Employees = FTEs):



From Interns to Developers: Opportunities Abound at 7 Generation Games

Through interactive stories and game-play, 7 Generation Games teaches children about history, language and math. To stay on top of growing workload, CEO Maria Burns Ortiz turned once again to the SciTech Internship Program to expand her team.

"We're a small company and we're doing all these things," Burns Ortiz said, "so it is really incredible and beneficial for us as a company to get access to this program."

In Spring 2021, she hired two computer science majors, Julie Malyshev, from the University of Minnesota, and Ali Mohamud, from Augsburg University. Brought on as web development interns, both Malyshev and Mohamud have since graduated and are now working as full-time developers with 7 Generation Games.

When Mohamud found this opportunity on SciTech, he was drawn to the prospect of improving his frontend development abilities. Since starting in January, he said, his skills have really taken off.

"After the first couple of weeks, I was producing code that's being used by actual teachers and I really liked that," Mohamud said. "This turned me into a developer quicker than what I expected."

In her spare time, Malyshev is a gamer, painter and digital artist. Getting to work on game design excited her and inspired her to apply. It was a chance to combine creativity with computer science, and for Malyshev, the two go hand in hand. "With programming, you have to be creative at times and you have to solve problems," she explained. "Logic isn't always the answer."

"We want our interns to come away with something," Burns Ortiz said. "To leave with experience and a portfolio that shows what they did." If her interns can look back on their time with 7 Generation Games feeling like they've learned something, that, she said, is the key to a great internship. [see the full story [here](#)]

Program Impact:

Individuals • Employers • Our Minnesota

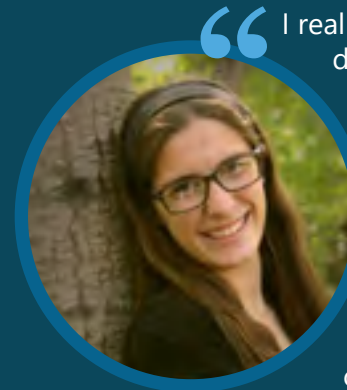
8 OUT OF **10** **SciTech interns stay in Minnesota** to continue their STEM careers (79%)

97% **of SciTech interns STAY IN STEM** after graduation

SciTech was launched in early 2012 with a mission of building and retaining Minnesota's STEM workforce, and this program works! Ninety-seven percent of SciTech interns work in STEM fields after graduation, thus building our state's STEM workforce. This is important because studies show that, even when students graduate with a STEM degree, they often do not continue into or stay in a career in STEM. Minnesota has also been able to retain nearly 80 percent of SciTech interns after graduation, thereby slowing the "brain drain" of talent leaving for the east and west coasts.

These statistics have remained stable since we began tracking them five years ago when the first cohorts of SciTech interns had graduated from college and started working. This is great news, because studies show that by 2029, the U.S. economy will need to fill 10.7 million jobs in STEM. To remain competitive in the state's top industry sectors, Minnesota needs its STEM workforce to be robust.

What would make SciTech more successful? Two things: First, closing the gap between the number of underrepresented students in STEM that apply to SciTech (61%) and those who are hired for internships (47%). Employers must take the lead in this area. And second, increased funding. MnTech strongly believes that SciTech could consistently place 400 interns per year if funding was returned to levels seen in the 2017-2018 biennium. MnTech will continue to work with the legislature to restore funding by demonstrating the return on the state's investment and the benefits to individual workers, employers and state of Minnesota.



“ I really appreciated that a single application to SciTech gave me direct access to a wide variety of STEM internship openings and contact information for the company representatives. Having grown up in a small family owned business, **I love that this program connects students in need of internships with smaller companies who can really benefit from having them.** The company I got connected with was a perfect fit for me and my interests and I would highly recommend the program to any student looking for a position with smaller, close-knit companies.”

— *Samantha Guldan, intern at Abilitech Medical* ”



“ **I don't know where I would be in my tech career without SciTech.**

I had applied to a lot of internships and was rejected from all of them. It was starting to feel like I had no chance in this career path. After being given a chance to intern at BetterYou. ai through SciTech, my previous worries were gone. The internship gave me the confidence and self belief I needed to succeed.

— *Surafel Bekele, intern at BetterYou* ”



“ Every intern that's come through SciTech has been remarkable. I always find,

when you're looking for interns focused on technology, SciTech is definitely the place to be. I'm always amazed.

— *Johnathan Banks, President, NCXT* ”

Hiring Companies listed by City

City	Company Name	City	Company Name
Angora	Art Unlimited	Faribault	Environmental Tillage Systems, Inc.
Arden Hills	Cryosa LLC	Farmington	Aerospace Fabrication & Materials LLC
Arden Hills	Superior Managed IT Services, LLC	Fridley	GT Metabolic Solutions, Inc.
Arden Hills	TruNorth Solar	Hamel	Fortin Consulting, Inc.
Baxter	Stern Assembly	Hanover	Astro Metal Craft
Becker	Bogart, Pederson & Associates	Hibbing	Architectural Resources Inc.
Bemidji	LaValley Industries	Hopkins	Berd Spokes
Blaine	In Control, Inc.	Hopkins	Historical Information Gatherers, Inc.
Bloomington	Servos LLC	Lewiston	PlastiCert, Inc.
Bloomington	Solution Builders, Inc.	Litchfield	GVL Poly
Brandon	Voyager Industries, Inc.	Mahtomedi	TLC Electronics, Inc.
Burnsville	Celadon Systems	Mankato	Hearing Glasses
Burnsville	Edge Consulting Engineers	Mankato	Midwest IT Systems, Inc.
Burnsville	GeoWall Designs	Mankato	Northflow Solutions, Inc.
Burnsville	Stonebrooke Engineering	Maple Grove	Chanl Health
Cannon Falls	Volumetric Technologies	Maple Grove	Francis Medical
Chanhassen	Agnitron Technology	Maple Grove	MicroOptx
Chanhassen	Frontier Energy	Maple Grove	Nevers Industries Inc.
Chisago City	MicroBio Consulting	Maple Grove	VirtusAero LLC
Clearwater	T.O. Plastics	Medina	Intercomp Company
Crookston	Widseth Smith Nolting, & Assoc., Inc.	Minneapolis	7 Generation Games
Dassel	Spectralytics	Minneapolis	Alliant Engineering, Inc.
Deerwood	Deerwood Technologies	Minneapolis	Astrin Biosciences
Delano	Railway Equipment Company	Minneapolis	Atlas Manufacturing
Delano	Schoborg Land Services, Inc.	Minneapolis	Brightfox
Detroit Lakes	RMB Environmental Laboratories, Inc.	Minneapolis	Brion Finlay Engineering LLC
Duluth	American Precision Avionics	Minneapolis	Clientek
Duluth	EPC Engineering & Testing	Minneapolis	CNA Consulting Engineers
Eagan	REMastered Sleep LLC	Minneapolis	Delavan Ag Pumps, Inc.
Eden Prairie	Elucent Medical	Minneapolis	F3 Wireless
Eden Prairie	Nuwellis, Inc.	Minneapolis	Flywheel Exchange, LLC
Eden Prairie	Third Wave Systems	Minneapolis	H&B Elevators
Edina	Viresco AD	Minneapolis	Haystack Data Solutions
Excelsior	Beachfront Design	Minneapolis	Invenshure [continued on next page]



SPOTLIGHT: NCXT

To ensure they can stay as productive as possible, all while strengthening their talent pipeline, the team at NCXT often hires interns over the summer to help them develop their tech.

“We love to work with interns,” said NCXT’s President Jonathan Banks, “because they definitely bring great ideas and fresh thinking. I think the way Mars does that is absolutely awesome, because his specialization and knowledge is very deep.”

The “Mars” he’s referring to is Mourya “Mars” Kunuku, a master’s degree student from St. Cloud State University. Inspired by the company’s dedication to their mission, Mars said, “It’s really incredible what they do here.”

Mars’ data-visualization analyst internship was well-structured, designed to combine training with project work. “I like challenging projects,” Mars said. “Something I can learn more about. I like when it’s difficult and I have to figure out, ‘How can I solve this?’”

“Mars is able to fill a position on our team where he’s really an expert,” Banks said. “And over the course of the last two months, he’s been able to communicate his expertise more effectively for the benefit of the entire organization.”

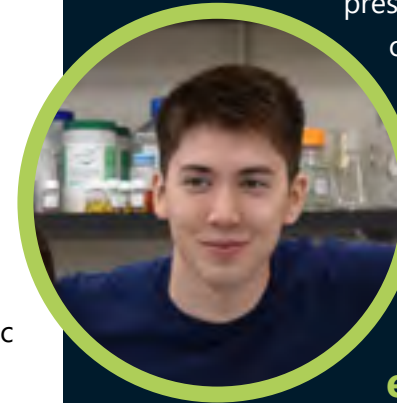
“I wouldn’t have met NCXT if it wasn’t for SciTech. [SciTech] is the tree that’s connecting us. I think it’s an incredible opportunity for students.” See the full story [here](#).

Hiring Companies listed by City, continued

City	Company Name
Minneapolis	Itasca Consulting Group, Inc.
Minneapolis	LightingHouseUSA, Inc.
Minneapolis	NCXT
Minneapolis	NetZro
Minneapolis	Neurotype Inc.
Minneapolis	Nexlore
Minneapolis	"Premier Biotech Labs, LLC
Minneapolis	Procellis Technology Inc
Minneapolis	Punch Through Design LLC
Minneapolis	Railbox Consulting
Minneapolis	Rani Engineering
Minneapolis	Renew Power Systems, Inc.
Minneapolis	SIFT
Minneapolis	SocialWise Media Group
Minneapolis	Software for Good
Minneapolis	Terrafore Technologies, LLC
Minneapolis	TLC Millimeterwave Products Inc.
Minneapolis	Virutech Systems, Inc.
Minneapolis	Vonzella, Inc.
Minnetonka	Advisory Aerospace OSC
Minnetonka	Osprey Medical, Inc.
Minnetonka	Ostra, LLC
Minnetonka	Sambatek
Monticello	Aroplax Corporation
Monticello	UMC, Inc.
New Brighton	DOSE Health
New Ulm	August Schell Brewing Company
Northfield	All Flex Flexible Circuits
Pequot Lakes	Pequot Tool & Manufacturing Inc.
Perham	Kit Masters
Plymouth	Advanced Inspection Services
Plymouth	Clarus Medical, LLC
Plymouth	DyaMX, Inc
Plymouth	HZ United, LLC

City	Company Name
Plymouth	Laser Peripherals, LLC
Plymouth	Lindell Engineering, Inc.
Plymouth	Monteris Medical
Plymouth	NimbeLink
Plymouth	NPX Medical, LLC
Plymouth	Peytant Solutions, Inc.
Plymouth	TissX
Ramsey	Lift and Store, LLC
Rochester	Elite Custom Solutions
Sauk Rapids	Community Land Solutions
Sauk Rapids	Engel Metallurgical
Savage	Hydra-Flex
Shoreview	ASTER Labs, Inc.
St. Cloud	GeoComm
St. Cloud	Microbiologics
St. Louis Park	VSI Labs
St. Paul	AbiliTech Medical
St. Paul	ABV Technology
St. Paul	Aclaris Medical, LLC
St. Paul	Aria CV, Inc.
St. Paul	BetterTime Co
St. Paul	Creed Interactive LLC
St. Paul	Ericksen Roeds Engineering
St. Paul	Gausman & Moore
St. Paul	ImagoAI Inc
St. Paul	Innovative Surface Technologies, Inc
St. Paul	InSitu Technologies Inc
St. Paul	Isthmus Engineering, Inc
St. Paul	Lab651
St. Paul	NovoClade
St. Paul	Sasya
St. Paul	Scanlan International, Inc.
St. Paul	Stratix Labs Corporation
St. Paul	Surgical Technologies, Inc.

City	Company Name
St. Paul	ThermaSolutions
Thief River Falls	Houston Engineering, Inc.
Virginia	Northeast Technical Services, Inc.
Waconia	Systemhouse Inc
Walker	Pro-West & Associates, Inc
Waseca	KAMP Automation
Wayzata	Open Avatar dba Rover Robotics
West St. Paul	Tapemark
White Bear Lake	Techie Dudes
Willmar	Bollig Inc
Winona	Alliant Castings Inc.
Winona	Designs by Natural Processes



“ Many students (including myself) experience pressure from a lack of internships in their fields of study. **SciTech fulfills a niche and allows for STEM students to experience work at smaller companies that they otherwise wouldn't have been able to work at and permits students to gain further perspective and experience**...my experience with these internships is at least on par with larger companies. I believe that programs like SciTech that create internship opportunities for students is an important investment into the future.
 — Thomas Beall, Hardware Engineer Intern, Monteris Medical ”



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