

ANNUAL
REPORT
2023



GRIFFISS
INSTITUTE



Students participate in the RI STEM Lego Robotics camp where they have an immersive educational experience developing critical skills such as problem-solving, teamwork, creativity, and technological literacy.

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IAC Wins Best
In Region

From Coast to Coast... it all Starts Here!

VICEROY Lead Virtual Institutes:

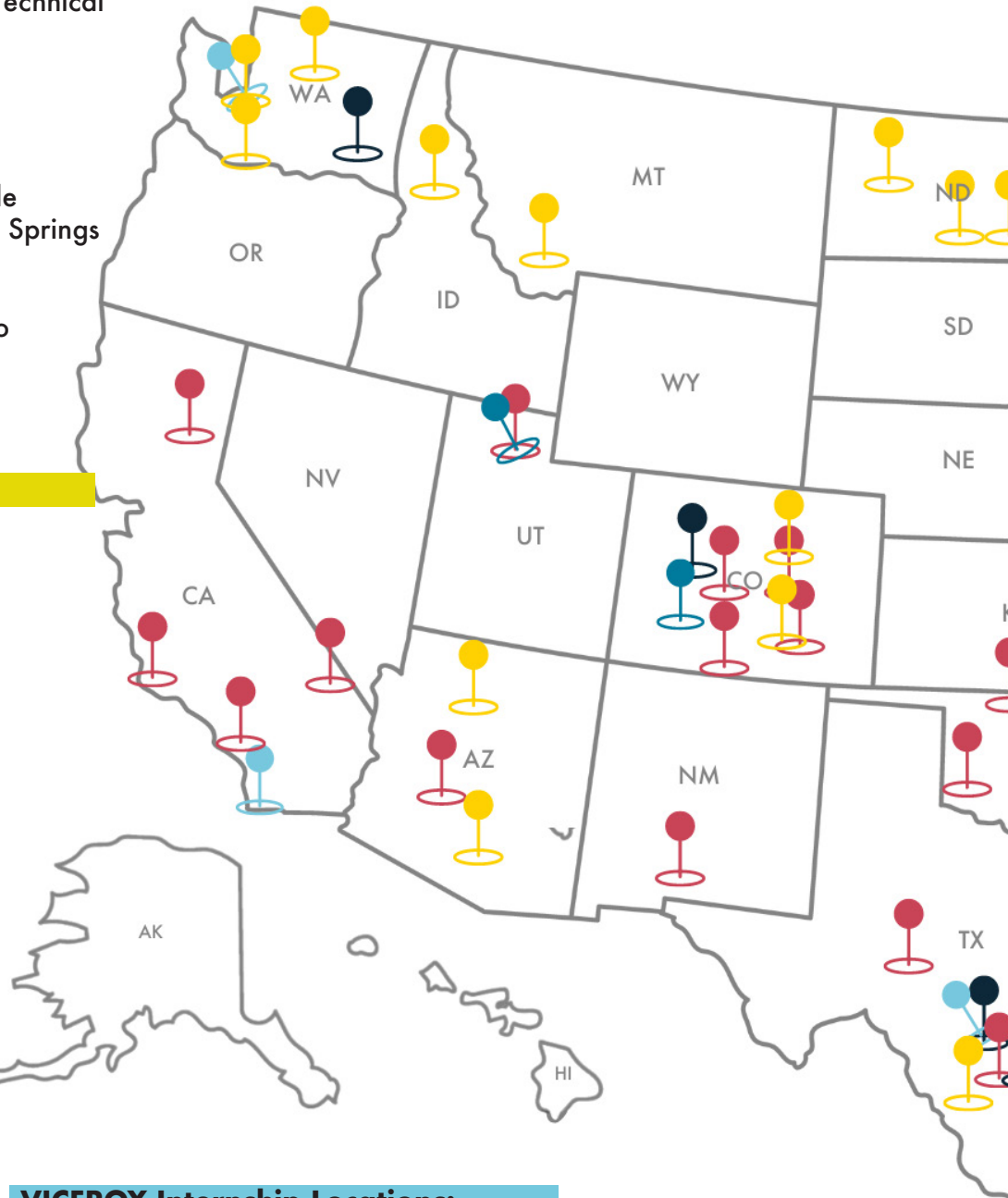
Mississippi State University
 North Carolina Agricultural and Technical
 State University
 North Dakota State University
 Northeastern University
 SUNY Albany
 Texas A&M University
 University of Alabama in Huntsville
 University of Colorado, Colorado Springs
 University of Detroit Mercy
 University of Kansas
 University of Texas at San Antonio
 Virginia Tech
 Washington State

VICEROY Virtual Institutes:

Alabama A&M
 Augusta University
 Bismarck State College
 Central Washington University
 City University of Seattle
 Clark Atlanta University
 Florida International University
 Kennesaw State University
 Macomb Community College
 Minot State University
 Montana State University
 Norfolk State University
 North Dakota University System
 Northern Arizona University
 Oakland Community College
 Ohio State University
 Old Dominion University
 Prairie View A&M University
 Purdue University
 San Antonio College
 Texas A&M of San Antonio
 Tuskegee University
 University of Arizona
 University of Colorado Boulder
 University of Colorado Denver
 University of Houston
 University of Idaho
 University of South Carolina
 Washtenaw Community College

VICEROY Internship Locations:

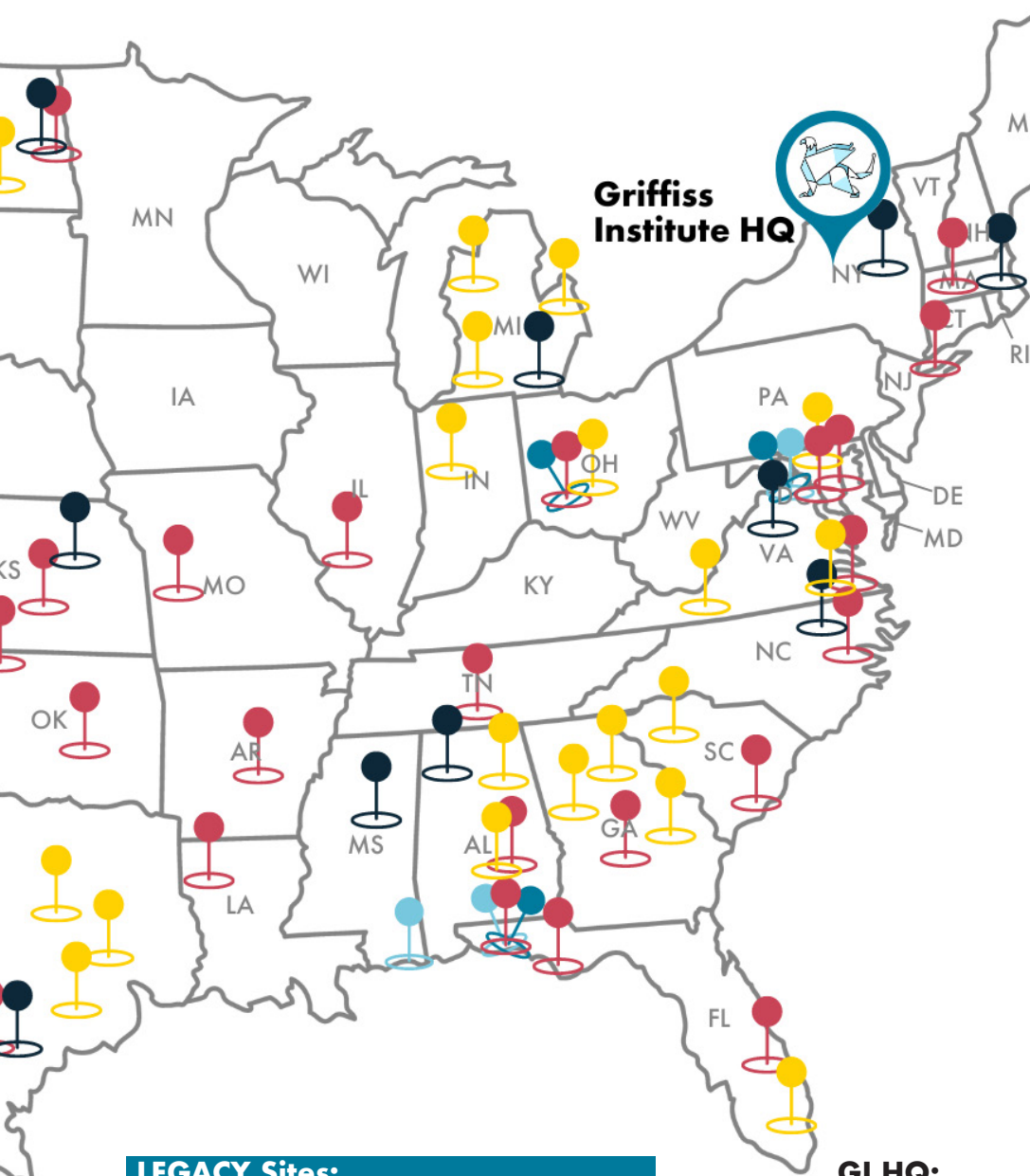
Air Force HNC CY, TX
 Eglin AFB, FL
 Keesler AFB, MS
 Keyport NUWC, WA
 Navy Research Lab, Washington DC
 NIWC PAC, CA
 Wavelength/JBSA, TX



Griffiss Institute's national network allows us continuous expansion of our programs and partnerships that bring forth the development of the next generations of STEM Talent.

Air & Space STEM Outreach Supported Bases:

106th Rescue Wing, NY AN
 412th Test Wing, Edwards AFB, CA
 AFOSR Business Integration, VA
 AFOSR S&T, VA
 AFRL/RI, NY
 AFRL/RQ, Edwards AFB, CA
 Altus AFB, OK
 Andrews - Joint AFB, MD
 Arnold AFB, TN
 Barksdale AFB, LA
 Beale AFB, CA
 Buckley SFB, CO
 Charleston, Joint Base, SC
 Eglin AFB, FL
 Goodfellow AFB, TX
 Grand Forks AFB, ND
 Hanscom AFB, MA
 Hill AFB, UT
 Holloman AFB, NM
 K12 STEM Office, WPAFB, OH
 Lackland AFB, TX
 Langley AFB, VA
 Little Rock AFB, AK
 Los Angeles AFB, CA
 Luke AFB, AZ
 Maxwell AFB, AL
 McConnell AFB, KS
 Patrick AFB, FL
 Peterson SFB, CO
 Schriever SFB, COG
 Scott AFB, IL
 Seymour Johnson AFB, NC
 Tinker AFB, OK
 Tyndall AFB, FL
 USAFA, CO
 Vance AFB, OK
 Vandenberg AFB, CA
 Warner-Robins AFB, GA
 Whiteman, AFB, MO



LEGACY Sites:

AFOSR, VA
 Air Force Academy, CO
 Eglin AFB, FL
 Hill AFB, UT
 K12 STEM Office, WPAFB, OH

GI HQ:

ACE
 AFRL RI Intern & Co-Op
 Evolve Tech Incubator
 HUSTLE Defense Accelerator
 Information Institute
 Innovare Studios
 NEATEC
 RI STEM
 VICEROY MAVEN



About Griffiss Institute

The Griffiss Institute (GI) is more than just your average organization—it's an enterprise, a 501(c)(3) STEM powerhouse dedicated to fueling innovation in the American Defense Industrial Base. Headquartered at the vibrant Innovare Advancement Center in Rome, NY, we specialize in bringing together top-notch teams and cutting-edge technologies to tackle the toughest national security challenges.

At the Griffiss Institute, our mission is clear: we're passionate about fostering talent and advancing technology to build a stronger, safer America. From nurturing young minds to empowering professionals at various stages of their careers, we're committed to creating an ecosystem that's supportive and dynamic.

At the heart of our enterprise lies defense tech transfer. Innovation doesn't stop in the lab—it's about getting those game-changing solutions out into the world where they can make a tangible impact. At Griffiss Institute we can connect you to a diverse range of technologies spanning cybersecurity, artificial intelligence, unmanned aerial systems, quantum computing, and more. Our network showcases the latest advancements developed by leading researchers and innovators from around the globe.

We inspire, engage, and prepare the next generation of scientists, engineers, and entrepreneurs to turn groundbreaking ideas into real-world solutions for the betterment of our national security.

Our Leadership

The 2023 Executive Leadership team at the Griffiss Institute serves as the cornerstone of our organization, driving our dynamic team to push boundaries in fulfillment of our mission.



Heather Hage
President & CEO



Seth Mulligan
Chief Operations
Officer



Mike Wessing
Chief Engineer



Todd Humiston
Chief Talent
Officer



Melissa Tallman
Chief Brand
Officer



David Semadeni
Chief Financial
Officer



Tracy DiMeo
Executive Office
Manager

Our Board

The Griffiss Institute Board of Directors provides strategic guidance and oversight, ensuring the organization achieves its mission and long-term goals.



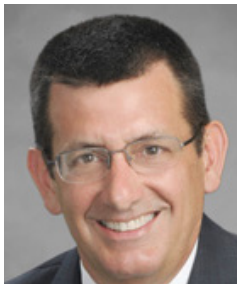
Patricia Baskinger
AX Enterprise, LLC
Chairperson



Col. William Gray
Ret. USAF, AFRL/
RI, Emeritus
Vice Chairperson



Steven J. DiMeo
Mohawk Valley
EDGE
Treasurer



Peter Baildon
Senior Vice President
of Commercial
Banking
M&T Bank



Tim Butcher
Executive Director of
Operations
White Management
Corporation



Mark Gastin
Partner & CPA
Bowers & Company
CPAS PLLC



Charles Green
President & CEO
Assured
Information
Security



Dr. Richard Joseph
Ret. United States
Air Force



Dr. John Marsh
Ret. Chair for the Dep.
of Network & Com-
puter Security
SUNY Polytechnic
Institute



Laurel McAdoo
Director of Talent,
Culture & Inclusion
SUNY Research
Foundation



William VanShufflin, Jr.
Senior VP of Strategic
Initiatives
Mohawk Valley
EDGE



A Message from our President & CEO

As we turn the page on another year, I can only look back on 2023 with tremendous gratitude for the people and partners who elevated our mission and impact to unprecedented heights. In the blink of an eye, 2023 ushered in opportunities for Team GI to apply the past 20 years of our hard-earned experience in delivering STEM education and technology transfer opportunities to our home community of Rome, NY, and begin to scale it to a national platform.

The demand signals for nontraditional STEM education across the American P-20 landscape have never been stronger, with a tight labor market and increasing demand for an American workforce that is more highly skilled in fields that align with our nation's critical technology areas. A telling example: the very first STEM Camp we hosted for Rome Lab in 2023 was fully booked within a mere matter of minutes of registration opening. All of 2023's nine STEM camps in Rome were completely filled within a matter of 24 hours, leaving room for our

teams to collaborate for more STEM adventures for 2024 as the interest and need was soaring skyward in our home community. In alignment with this trend, our STEM talent development programming portfolio saw significant growth in 2023, with 158 STEM campers, 327 collegiate interns, and 69 visiting researchers participating in GI programs across the nation.

Delivering a national agenda also means delivering a clear corporate strategy and core operation that is highly effective and efficient, with a strong culture of compliance and commitment to service excellence. Our 2023 Corporate Operating Plan was aptly themed Build to Scale as a reflection of our need to elevate our business systems, policies, processes, and most importantly, our people, to rise to the challenge of rapid growth. Critical investments in facilities, IT and A/V infrastructure, systems integration, and a brand and digital refresh, including planning for the rebranding of the GI website to offer an improved look and better user

experience for the thousands of users in academic, industry, and government communities who interact with us each year.

We welcomed new members to our staff and board, while we thanked others for their service. Notably, we wished a fond farewell and deep gratitude with a Lifetime Service Award to GI board veteran of 20 years Dr. Shiu-Kai Chin, who retired this year from the GI and his distinguished career in teaching and research at Syracuse University, where he was also honored with SU's Chancellor's Medal, the University's highest honor.

Working alongside for the second year, with the Women's Fund, to honor four women-owned businesses here in the Mohawk & Herkimer Counties, we are always happy to give back and celebrate the success of others who contribute so much to our communities.

Here's to continuing this journey in 2024 with the same spirit of innovation, collaboration, and gratitude that brought us here.

Sincerely,

Heather Hage



Heather Hage,
Griffiss Institute President/CEO

2023 By the Numbers



TALENT

158 Local STEM
Camp Grads
700k+ Students
30k+ Teachers
3k+ Schools

327
Collegiate
and Graduate
Interns

69 Visiting
Faculty & Fellows



INNOVATION

128 Partnering
Colleges + Universities

35 Cooperative
Research + Commercial
Test Projects for AFRL

10 Active Patents
Filed & Issued for AFRL

8 New Startups
11 Incubator Clients
3 Startups in Residence



EXPERIENCE

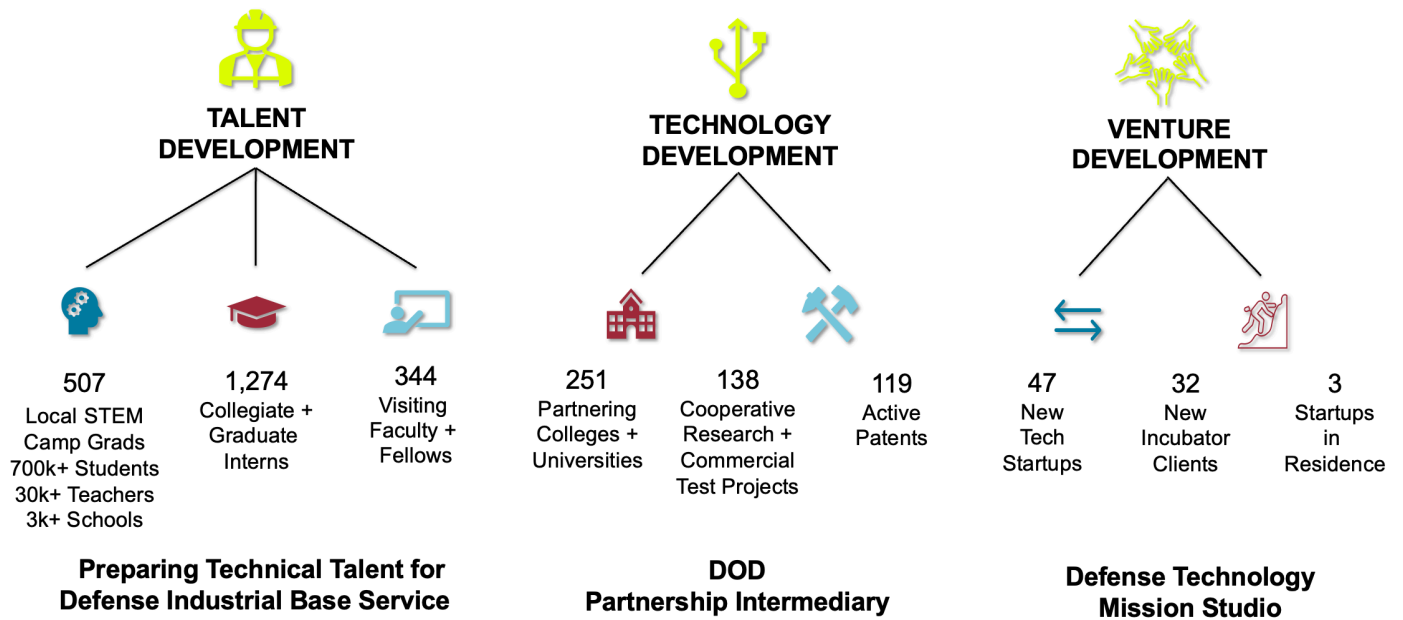
4,781 Total Visitors,
Guests, and Event
Attendees

137 Events held at
Innovare and facilitated
by Griffiss Institute

77 Griffiss Institute led
tours of Innovare
Advancement Center

2019 - 2023 Recap

A look back on the evolution of the Griffiss Institute



Financials

2023 Revenue by Sponsor

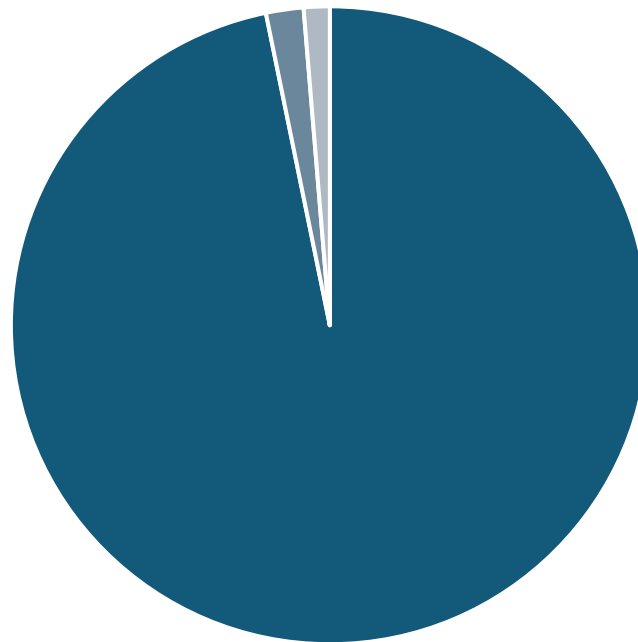
2023

Federal
\$33,741,622.84

New York State
\$662,079.65

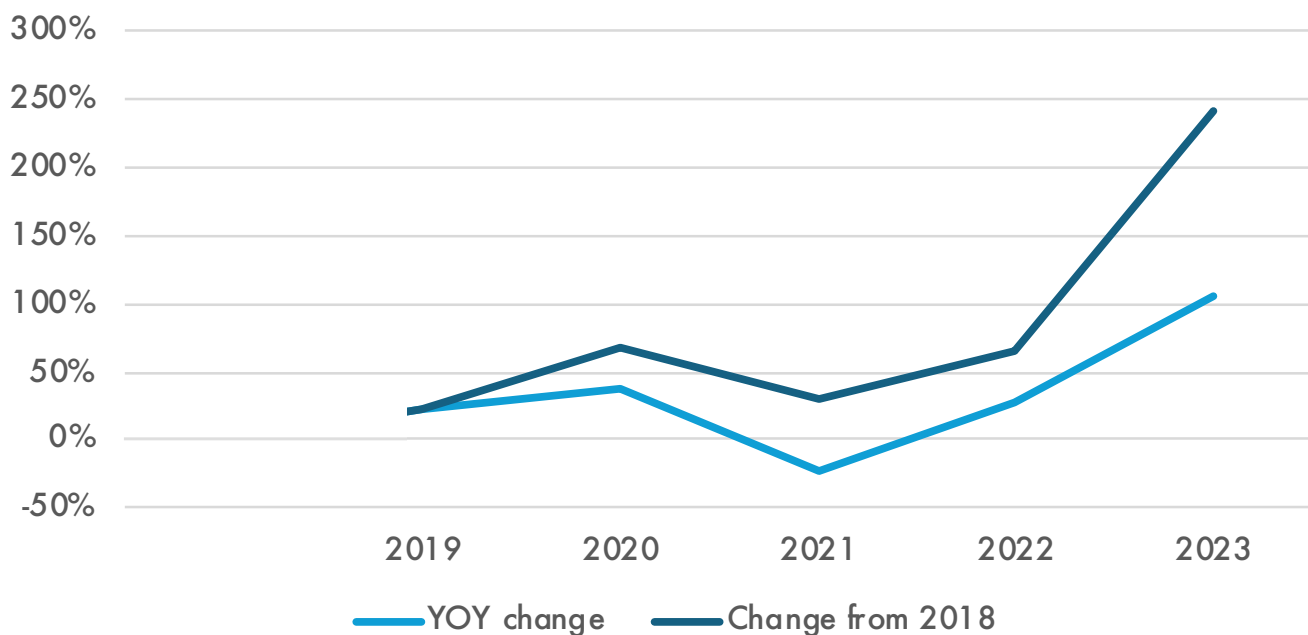
Private and
Commercial
\$457,496.09

Total Revenues
\$34,861,198.58



■ Federal ■ New York State ■ Private and Commercial

YOY Revenue % Growth



2023 Expenses

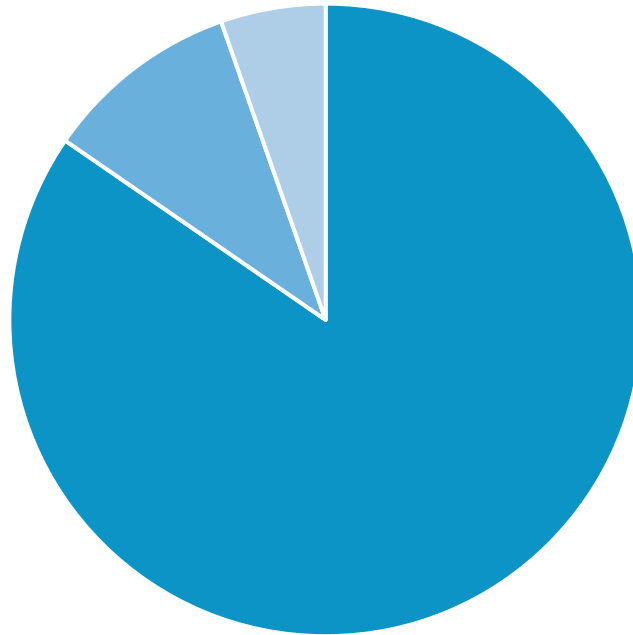
2023

Program
\$29,544,782.01

Indirect
\$3,506,306.66

Administrative
\$1,873,514.99

Total Expenses
\$34,924,603.66



■ Program ■ Indirect ■ Administrative

2023 Employment Metrics

	2020	2021	2022	2023
FT Employees	14	16	24	39
PT/Contract Employees	17	18	19	11
Total # Employees	31	34	43	50
# New Hires	2	15	24	19
Turnover Rate	3.3%	28.3%	37.8%	21.5%
Average Cost Per Hire	\$8.1K	\$58.6K	\$60.9K	\$77.3K

New Employees

The Griffiss Institute welcomed 17 new employees in 2023 to join our mission and bring our organization to the next level of productivity and success.



Brian Abbe
SME, Innovation & Partnerships



Kyler Alm
LEGACY, Hill Air Force Base Site Lead



Svea Anderson
STEM Education Specialist



Ariana Belluscio
Project Support Associate, Interns



Dr. Yu Chen
Talent Director, Internet of Things



Darian Deeley
MarCom Coordinator



Michael Feng
Director, Commercial Partnerships & Market Activation



Khattab Girshab
Application Support Specialist



Matthew Gwilt
AFRL/RI STEM Intern



Todd Humiston
Chief Talent Officer



Thomas Kramer
Manager, Safety & Security Operations



Brian Marshall
Manager, Information Technology



Dave Malsom
Manager, Talent Division Portfolio



Pam Mustee
Manager, Marketing & Communications



Bambi Patterson
Project Support Associate, VICEROY



Brady Shuck
ACE Exercise Development Engineer

2023 Highlights

A look at some of the most prominent moments from 2023 and the impact they've had on our region and economy.



Timothy Sakulich, Executive Director of AFRL visits the Innovare Advancement Center to observe how academia, industry, and government come together to address challenges to our nation's security.

The 2023 Innovare Summer Soiree celebrated the 55+ visiting professors, 100+ interns, 50+ research fellows, 9 HUSTLE Defense Tech startup teams, and the work of all our business partners.




Griffiss Institute hosted AFRL's 5th Annual Quantum for International (Q4I) Workshop, a technical networking event aimed at fostering collaboration and innovation in the field of quantum technology.

EMPEQ takes home the grand prize of \$150,000 from the 2nd cohort of Griffiss Institute's HUSTLE program sponsored by New York State and National Grid.



The Information Institute® hosted 69 visiting faculty and fellows from American Universities to work with AFRL Scientists and engineers. Poster Sessions are held to showcase their accomplishments.

A young person with glasses and curly hair is seen from the side, looking at a small blue Sphero robot on a dark surface. The robot has a glowing green light on its head and is positioned next to a tablet. The background is dark and out of focus. A decorative network of white dots and lines is overlaid on the bottom left of the image.

As part of the RI STEM Sphero summer camp, students are immersed in an iterative coding experience with small robots. They learn the ins and outs of what makes coding so important in today's technical landscape.

STEM at Griffiss Institute

The Air & Space STEM Outreach Program is all about nurturing the next generation of scientists, mathematicians, engineers, and tech enthusiasts.

We're aiming for these bright minds to one day make groundbreaking discoveries and solve challenges in national defense labs and across a wide range of companies.

To make this happen, it takes a collective effort. We're talking about bringing together businesses, government agencies, educational institutions, professional groups, teachers, and students.

That's where the Griffiss Institute and AFRL/RI join forces to host the RI STEM summer camps. These camps go beyond the classroom, giving students the chance to dive deeper into their education.

At camp, students get hands-on experience and learn skills that directly relate to STEM careers.

In 2023 we ran 9 camps with a total attendance of 157 campers from both near and far.

Our Camps covered everything from LEGO Robotics and Cybersecurity to Principles of Flight and even Quantum Innovation! There was truly something for every aspiring scientist, engineer, and tech whiz.

But here's the real kicker: these camps aren't just about STEM. They plant seeds of inspiration, encourage personal connections and friendships, and motivate the students to pursue STEM-focused paths in high school and beyond graduation.



AIR & SPACE
STEM Outreach
A Force to Shape the Future



	2020	2021	2022	2023
LEGO Robotics	n/a	12	32	31
Arduino	13	15	19	17
Drones	n/a	11	14	11
Quantum	n/a	16	21	17
Cyber 1.0	23	15	16	15
Principles of Flight I	n/a	n/a	24	16
Principles of Flight II	n/a	n/a	7	16
Sphero	n/a	n/a	n/a	18
Engineering	n/a	n/a	n/a	16

LEGACY

Leadership Experience Growing Apprenticeships Committed to Youth

The Air Force LEGACY program is all about paving the way for the next generation of STEM stars. We're on a mission to inspire and nurture young talent, aiming to shape the future of America's STEM workforce.

The LEGACY vision? To be the go-to program for bringing students into the STEM pipeline and boosting our nation's STEM workforce.

LEGACY unfolds in three phases, starting from age 11 and going all the way through college. We're all about sparking that STEM interest early, keeping the flame alive through high school, and ultimately landing students in their dream STEM careers.

Phase 1: Craftsman (Ages 11-15)
Think of this as a cool, hands-on STEM camp for middle schoolers. Best part?

It's totally free!

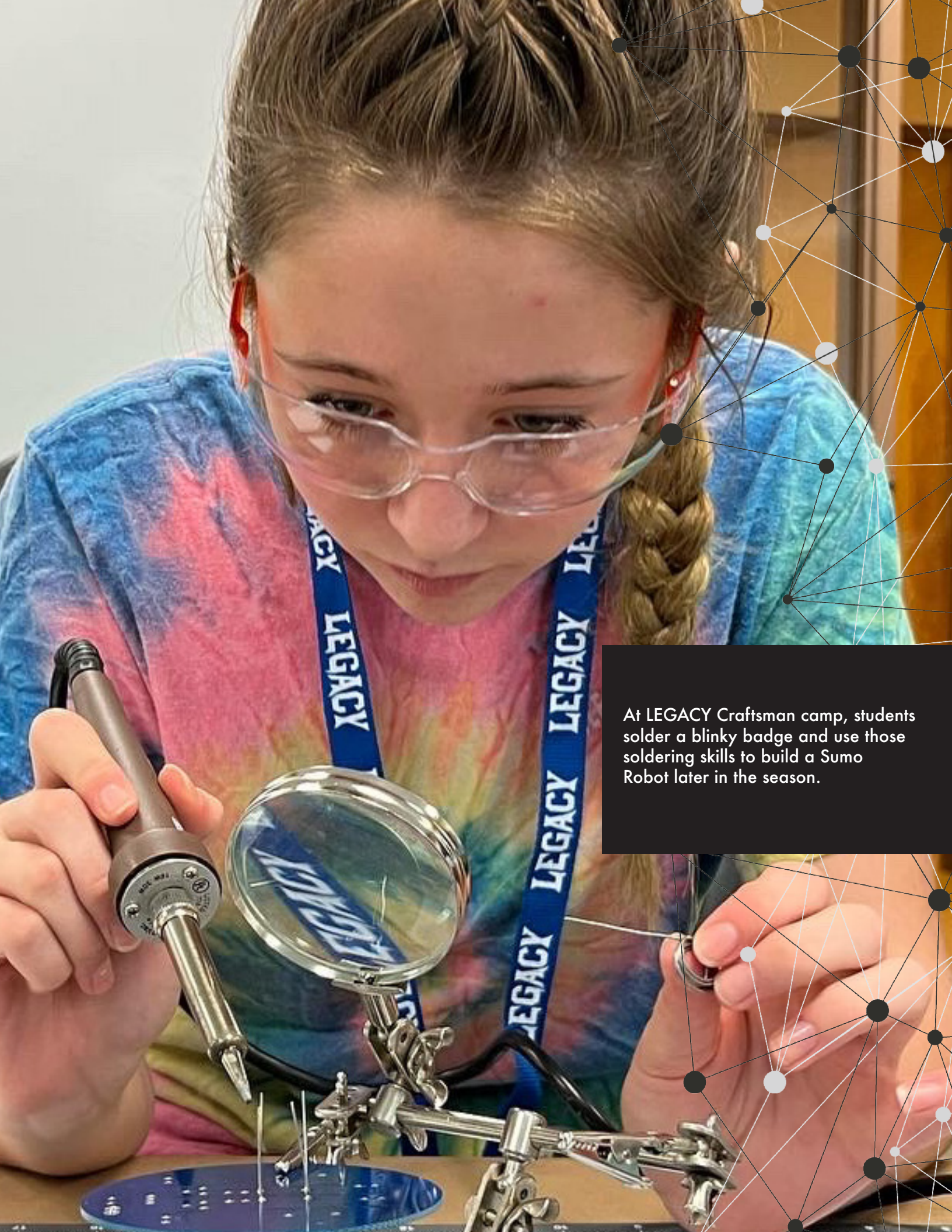
Phase 2: Junior Apprentice (Ages 16+) Get ready to roll up your sleeves and work alongside Air Force mentors. We're not just talking about learning here; we're laying down the groundwork for the future.

Phase 3: Apprentice (College)
College-bound? We've got you covered. We'll hook you up with the right programs, making sure your transition from college to career is smooth and seamless.

Run by our epic team at the Griffiss Institute, LEGACY is happening in multiple locations across the country, including Dayton, Colorado Springs, Niceville, Salt Lake City, and Arlington.



	2020	2021	2022	2023
Students	367	399	354	368
Craftsman Camps	20	25	25	25
Jr. Apprentice	53	83	80	62
Apprentice	27	16	17	38
Target Candidate	81%	81%	73%	84%
Return Rate	83%	84%	86%	82%



At LEGACY Craftsman camp, students solder a blinky badge and use those soldering skills to build a Sumo Robot later in the season.



Thanks to the finalist teams...
and everyone involved...

We just completed the

WORLD'S FIRST
CTF IN SPACE

HACK-A-SAT

HACK-A-SAT is like the Olympics of cybersecurity, where the world's best tech wizards go head-to-head in a Capture the Flag (CTF) showdown. Sponsored by the Space Force and the Air Force Research Laboratory, the 2023 event was held at DEF CON 31 in Las Vegas, marking a huge leap forward in protecting Defense Department satellites from cyber threats.

This cutting-edge competition aims to rally top-notch cybersecurity talent from across the globe, equipping them with the skills needed to bolster the security of space systems.

In previous HACK-A-SAT events, elite teams honed their skills both on physical hardware and digital simulations. But in 2023, things went to a whole new level with Hack-A-Sat 4 – the world's first-ever CTF competition IN SPACE.

Picture this: Five Finalist Teams battling it out on Moonlighter, an actual satellite orbiting in space. Moonlighter isn't just any satellite; it's a groundbreaking hacking sandbox designed to push the boundaries of

cybersecurity and keep space safe for all of us.

The 2023 finalists included Kraitsat, mHACKeroni, SpaceBitsRUs, Poland Can Into Space, and jmp fs: [rcx].

And the winners? Drumroll, please!

First Place (\$50,000): mHACKeroni – A powerhouse collaboration of five Italian cyber research teams.

Second Place (\$30,000): Poland Can Into Space – Made up of Polish cyber researchers, along with talent from Ireland and Germany.

Third Place (\$20,000): jmp fs:[rcx] – A stellar mix of last year's Hack-A-Sat champs from the U.S. and the United Kingdom.

These teams blew us away with their mad cybersecurity skills, leaving hundreds of competitors in the cosmic dust.



	2020	2021	2022	2023
Qualifying Players	n/a	2,912	2,500	2,717
Teams	n/a	1,070	803	728
Countries Represented	n/a	75	71	n/a
Hours of Competition	30	30	30	30
Views (hackasat.com)	6,500	2,900	3,200	4,800
Views (youtube.com)	7,100	1,900	2,249	2,689

AFRL/RI Internships & Co-Ops

The Air Force Research Laboratory Information Directorate (AFRL/RI) Internship Program offers a prestigious and remunerated opportunity for students from freshmen to PhD level, provided they are enrolled in an accredited college or university and eligible for security clearance. This program allows interns to work alongside AFRL/RI researchers on groundbreaking projects.

Interns engage in advanced research topics such as Data Efficient Machine Learning, Artificial Intelligence, the Internet of Things (IoT), and Quantum Information Sciences.

For those with strong programming skills and a solid mathematics background, the Co-Op Program is an excellent fit. While expertise in machine learning is not a prerequisite, the program focuses on developing and nurturing these skills.

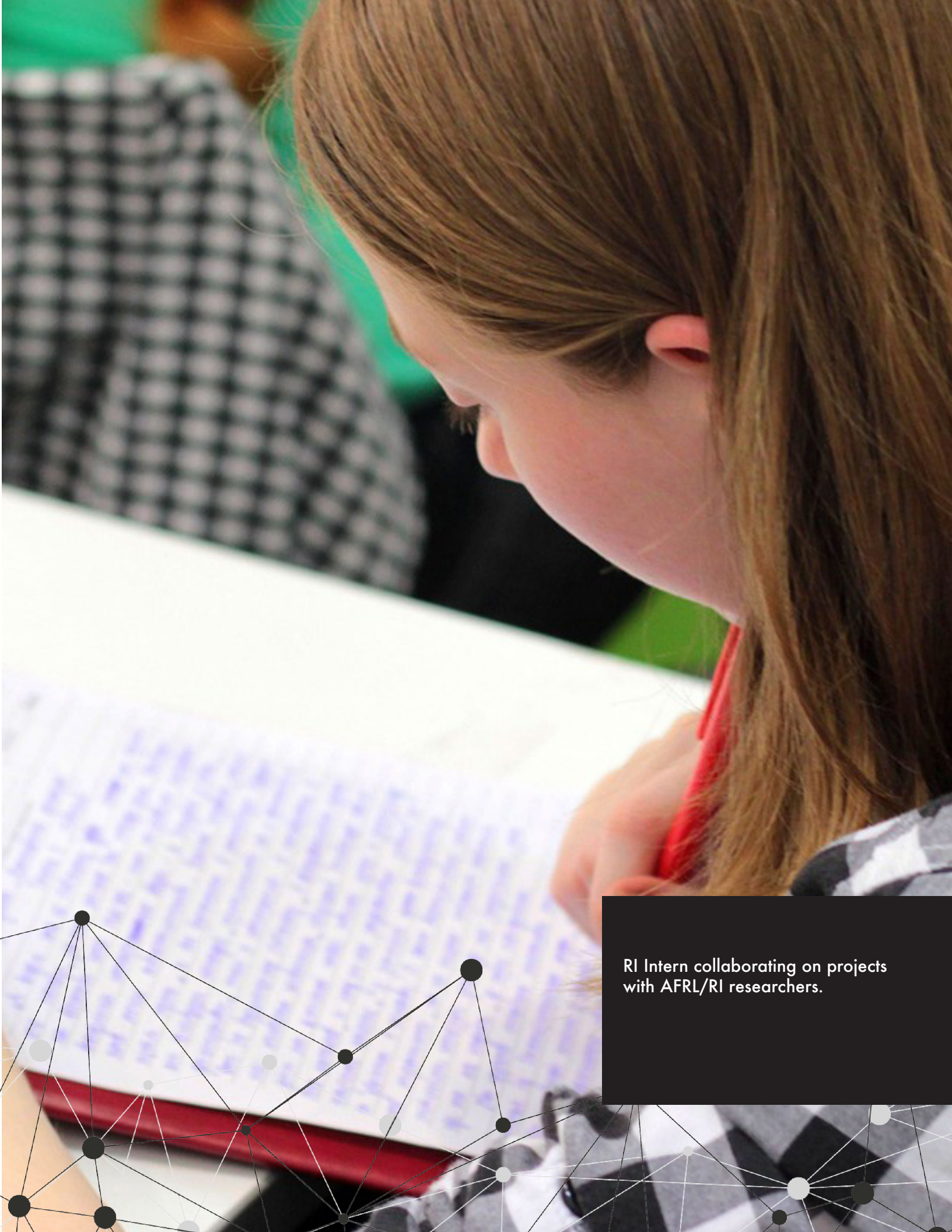
Interns gain hands-on experience by implementing state-of-the-art machine learning algorithms,

developing innovative techniques, and designing sophisticated experiments. Exceptional work may be recognized through publication in esteemed academic journals or conference presentations.

Participants will collaborate closely with experienced research scientists, gaining invaluable insights and refining their research skills. This program is dedicated to providing practical experience and fostering the growth of future research leaders.



	2020	2021	2022	2023
Applicants	720	445	421	650
AFOSR	n/a	n/a	n/a	5
VICEROY Research Interns	n/a	n/a	n/a	4
NEATAC Interns	n/a	n/a	3	7
RI Interns	25	28	20	18
Mentor Requests	36	42	60	54
Project Funded	36	33	27	31
Co-Op	0	1	2	23
Female Interns	12	8	6	20
Returning Interns	35	6	17	13
Extensions	21	10	4	5



RI Intern collaborating on projects
with AFRL/RI researchers.



VICEROY MAVEN interns working together to complete their capstone project. These projects mimic real-world cybersecurity situations and provide problem solving skills, leadership development, and showcase teamwork.

VICEROY

Virtual Institutes for Cyber and Electromagnetic Spectrum Research & Employ

The VICEROY Scholar experience is all about that awesome mix of hitting the books and diving into real-world tech adventures. We caught up with some of the interns who rocked it this season, and guess what? It wasn't just the sunny days that stole their hearts; it was immersing themselves in the tech scene right here in the Mohawk Valley.

In addition to the incredible experiences in Rome, NY, our future technologists got an up-close look at the mind-blowing Boston Dynamics robot at West Point. It was like stepping into a sci-fi movie, with our crew getting hands-on with the cutting-edge world of robotics and automation.

Take Caleb Lowe, for example. Hailing from Montana State University, Caleb dove headfirst into the VICEROY Program in 2023, eager to explore the cybersecurity and programming realms. He summed up his experience perfectly: "I've never dabbled in cybersecurity or programming, and I saw this as a golden opportunity to learn something new, especially since it could be handy in my Air Force career journey."

This year, our program's footprint expanded significantly. We were thrilled to participate in HammerCon, the Military Cyber Professionals Association's national conference, for the first time. This event highlighted the importance of training and

education in cultivating the next generation of military cyber professionals. These individuals must be well-versed in a wide array of subjects, including computer science, engineering, cryptography, and strategic planning. Moreover, they must possess critical thinking, effective communication, and adaptability; essential skills for navigating the ever-changing cyber domain.

The diverse perspectives and expert insights at HammerCon underscored the vital role military cyber professionals play in protecting the United States' critical infrastructure. Our involvement in this conference aims to foster a greater understanding and dialogue, contributing to the continued evolution of our nation's cyber defense capabilities.

2023 brought seven new Virtual Institutes to our program: North Carolina, North Dakota, University of Alabama Huntsville, University of Texas San Antonio, Texas A&M University, Kansas University, and University of Colorado Colorado Springs.

Each institute brings unique strengths and expertise to the table, enhancing our collective capabilities and reach.

The Symposium at Mississippi State University was a milestone event where we rolled out new branding. VICEROY hosted our first virtual career fair and held our inaugural National Cyber Competition, with the winning team hailing from the University of Alabama Huntsville. This competition showcased the incredible talent and dedication of our participants, setting a high bar for future events.

Together, these experiences and expansions highlight the dynamic and enriching nature of the VICEROY Program, preparing our scholars for impactful careers in the ever-evolving field of cybersecurity.



	2020	2021	2022	2023
Virtual Institutes	n/a	n/a	6	13
Colleges & universities	n/a	n/a	18	43
Applicants	n/a	n/a	95	135
Maven Graduates	n/a	n/a	22	56
DoD Job Sites	n/a	n/a	1	5
Envoy Students	n/a	n/a	n/a	11

ACE

Advanced Course in Engineering

Discover ACE: an extraordinary internship experience that immerses participants in the dynamic world of cyber operations while honing leadership skills. This program is open to undergraduates, ROTC Cadets, select active-duty personnel with relevant experience, and a few international officers and cadets.

Throughout the summer, ACE Interns collaborate with a dedicated group on cutting-edge research projects. These are high-intensity sessions designed to test innovative ideas and expand the boundaries of cybersecurity.

One of the program's unique aspects is the intern assignment to a mock nation-state. Every week, students work to advance their assigned nation's objectives in a simulated cyber conflict environment. From developing hacking strategies to operating drones, students will be defending and advancing their team's goals in a fast-paced, high-stakes scenario.

The program culminates in a capstone event—a comprehensive, multi-day cyber warfare simulation that brings everything together. The team will rely on collaboration and strategy to emerge victorious in this final challenge.

Physical fitness is also a key component of ACE. Each week, participants take on an 8-mile run through the Griffiss Technology and Business Park in Rome, NY. It's not just about staying fit, but also about building camaraderie and mental resilience.

As Lauren Fossel, Cybersecurity ACE Program Operations Analyst, explains: "At ACE, we emphasize holistic development, integrating cyber aptitude, leadership skills, and physical training. Our weekly 8-mile run is an opportunity for reflection, teamwork, and personal growth, allowing our future leaders to challenge themselves and connect as a unit."



	2020	2021	2022	2023
Countries Represented	n/a	3	3	3
Interns	n/a	40	41	46
Graduate Assistants	n/a	9	8	10
ROTC Detachments	n/a	11	19	17
Foreign Nationals	n/a	14	14	15
Hours of Instruction	n/a	128	128	128
8-Mile Runs	n/a	10	10	11
Papers	n/a	8	8	8
Guest Speakers	n/a	22	24	23



2023 ACE Interns great each other with cheers and encouragement at the finish line of their weekly 8-mile run.

Information Institute®

The Information Institute® (II) is an impressive consortium of over 90 colleges and universities across the United States, including 10 from New York State. This hub fosters collaboration between academia and the U.S. Air Force, advancing research in Command, Control, Communications, Computers, and Intelligence (C4I) and Cyber Technologies. These advancements benefit not only the Air Force and the Department of Defense but also businesses in the broader market.

The Information Institute® within this hub has several key objectives. It aims to create a collaborative research environment for member institutions, strengthen the relationship between the Air Force and these universities, and provide members with early access to exclusive events, summer programs, and project opportunities. The institute includes a diverse range of institutions, from renowned universities to community colleges.

A highlight of the II's activities is the Tech Talks, held twice a week. These sessions feature professors presenting their latest research findings. Additionally, the annual poster symposium in

August showcases the innovative work of these institutions to AFRL officials and the local community, celebrating the collective intellectual achievements of the hub.

Helen Durand, Associate Professor, Department of Chemical Engineering and Materials Science at Wayne State University and a long-time partner of the Information Institute® said it best, "Having the opportunity to work with AFRL has been highly impactful for my research program at Wayne State University. We have been able to forge strong collaborations with AFRL researchers and also to learn important quantum computing fundamentals from experts here that I was able to then bring back to my University to help train my students."



	2020	2021	2022	2023
Universities	n/a	n/a	26	38
Minority-Serving Institutions	n/a	n/a	10	10
Professors	n/a	n/a	52	57
Students	n/a	n/a	22	19
Fellows	n/a	n/a	14	11
Papers	n/a	n/a	72	104
Advisors	n/a	n/a	27	27
Research Topics	n/a	n/a	16	31
States of Universities	n/a	n/a	22	11

HUSTLE

Helping Upstate Science and Technology Leaders and Entrepreneurs

The HUSTLE Defense Accelerator is designed to empower tech startups pioneering advancements in artificial intelligence, machine learning, cybersecurity, quantum science, and uncrewed aircraft systems.

Through our comprehensive curriculum, participants gain invaluable knowledge and skills in business management, equipping them with the tools needed to thrive in today's competitive landscape.

Led by a team of seasoned professionals, and sponsored by AFRL/RI, New York State Division of Science, Technology and Innovation, and National Grid, our program offers tailored education and mentorship, providing insights into navigating government contracts, establishing strategic partnerships, and securing funding to fuel growth.

The 2023 HUSTLE journey began with 13 ambitious applicants, eventually narrowing down to nine teams, who relocated to the Mohawk Valley for the 8-12 week cohort. Immersing themselves and their companies into our ecosystem, they embarked on an exploration of innovation and dedication, divided into the Elevate and Accelerate tracks.

The outcomes of HUSTLE Demo Day were impressive and impactful: Accessible Automation and Drone City each secured \$50,000, while Paterson Aerospace Systems Corp and BosonQ Psi were awarded \$100,000 each through the Elevate track. The top honor went to EMPEQ, which received \$150,000 to advance their Fast Site Survey research.

We are filled with anticipation for the future, confident that the tech industry's next wave of leaders is on the rise.

We commend Accessible Automation, Drone City, BosonQ Psi, EMPEQ, LLUME, Imagine Aerial, Paterson Aerospace Systems Corp., Kquika, and Cyberspara for their exceptional contributions and vision. These startups exemplified the true spirit of HUSTLE in the tech world, making significant strides from conceptualizing innovative solutions to delving into the industry's intricacies.



	2020	2021	2022	2023
Applicants	n/a	n/a	19	12
Teams	n/a	n/a	5	9
Mentors	n/a	n/a	7	4
Workshops	n/a	n/a	1	5
Practiced Pitches	n/a	n/a	4	8
Judges	n/a	n/a	5	5
Awarded	n/a	n/a	2	6



Gavin Snyder, founder of Imagine Aerial, with Kaylon Paterson of Paterson Aerospace, at Fort Stanwix National Monument.

Coffee and Concepts

In May 2023, we kicked off the Coffee and Concepts TO GO season at SUNY Poly in Utica, where we had the pleasure of hosting 42 attendees from various sectors, including government, industry, academia, and more.

Our second Coffee & Concepts event took place on May 18th at NYSTEC, with 23 participants joining us. June saw us at Quanterion and AIS, where we welcomed 35 attendees at each location.

July and August were dedicated to connecting the Innovare community with Marquardt and Le Moyne.

Notably, our visit to Marquardt saw record-breaking attendance, with a remarkable 52 attendees who were given an insightful tour of Marquardt's facilities and had the opportunity to witness firsthand the innovative designs being produced there.



Future of Air & Space

Future of Air & Space, presented by National Grid, highlighted cutting-edge advancements in the air and space industry in Upstate New York. This event brought together professionals from established companies, investors, dealmakers, and entrepreneurs to explore developments in uncrewed aerial systems, artificial intelligence, machine learning, edge and quantum computing, and their applications.

Attendees had the opportunity to network, gain insights into working with the Department of Defense, and discover synergies for long-term business relationships.

Summer Soiree



The Griffiss Institute had an amazing time at the annual Innovare Summer Soiree, welcoming 250 guests to celebrate the achievements of our interns, staff, and partners. The event featured live music, entertainment, drinks from 16 Stone, and delicious food provided by Food Zone Filipino Food. Family-friendly fun was also provided by the Utica Children's Museum, and the event highlighted strong local business support through a basket raffle, showcasing the spirit of community collaboration.

Q4I Workshop

At the 2023 Q4i International Workshop, Griffiss Institute hosted 156 professors, interns, professionals, and industry leaders. Nine countries were represented, including officials from Brazil, Nigeria, Taiwan, and South Korea.

The keynote speaker, Dr. Jamil Abo-Shaeer, CEO of Vector Atomic, gave great insight to the Quantum Technologies for the real world. Other discussions were led by twenty-six different speakers, including Dr. Noel Goddard, CEO of Qunnect; Dr. Yves Idzerda, Director of MonArk Quantum Foundry; Dr. Thomas Jennwein, Associate Professor at the University of Waterloo; and Ms. La Vida Cooper, Director of DC QNET.



COLONEL FRED GARCIA II

Director, AFRL/RI

Commander, Detachment 4, AFRL

ANNUAL INTERNATIONAL WORKSHOP | JUNE 25-29 | ROM

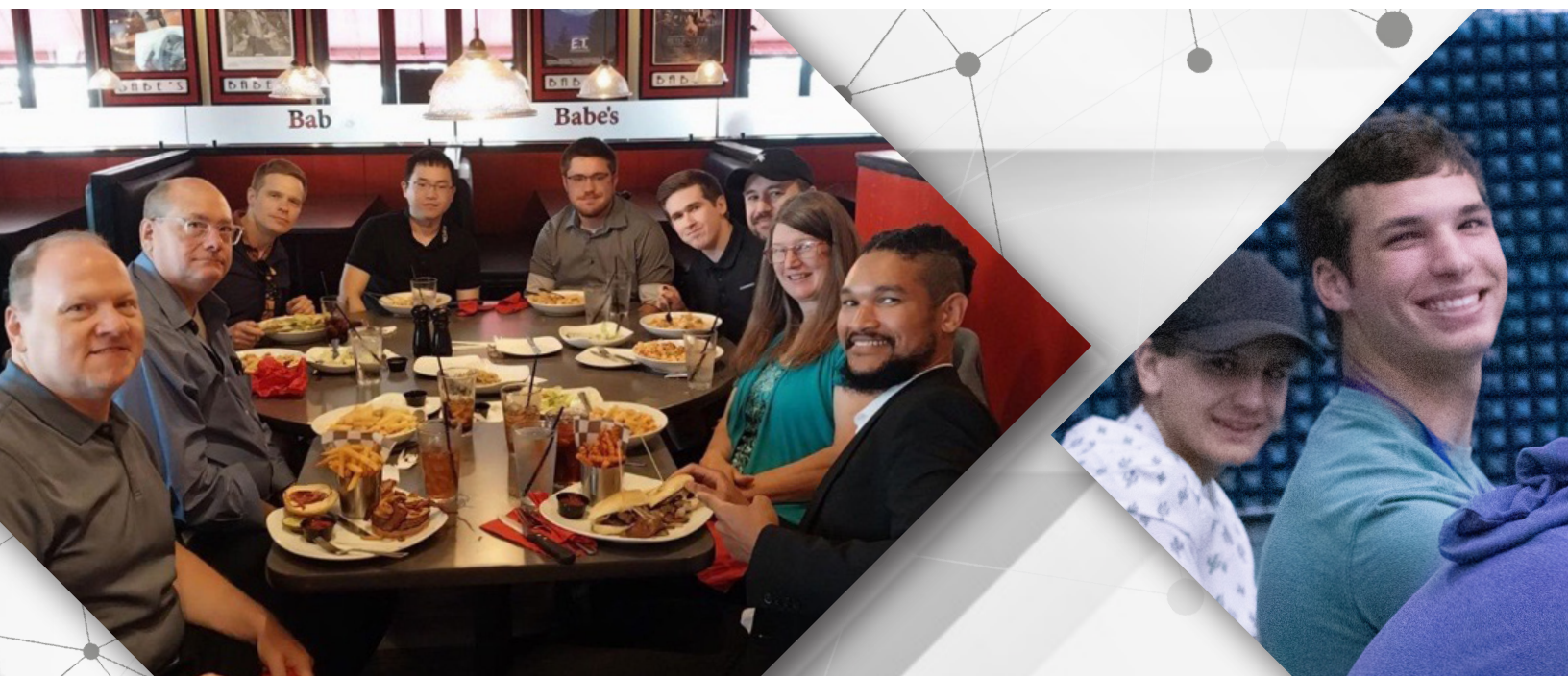
Colonel Fred Garcia II, addresses the audience at the 2023 Quantum for International Workshop hosted at SkyDome by the Griffiss Institute.

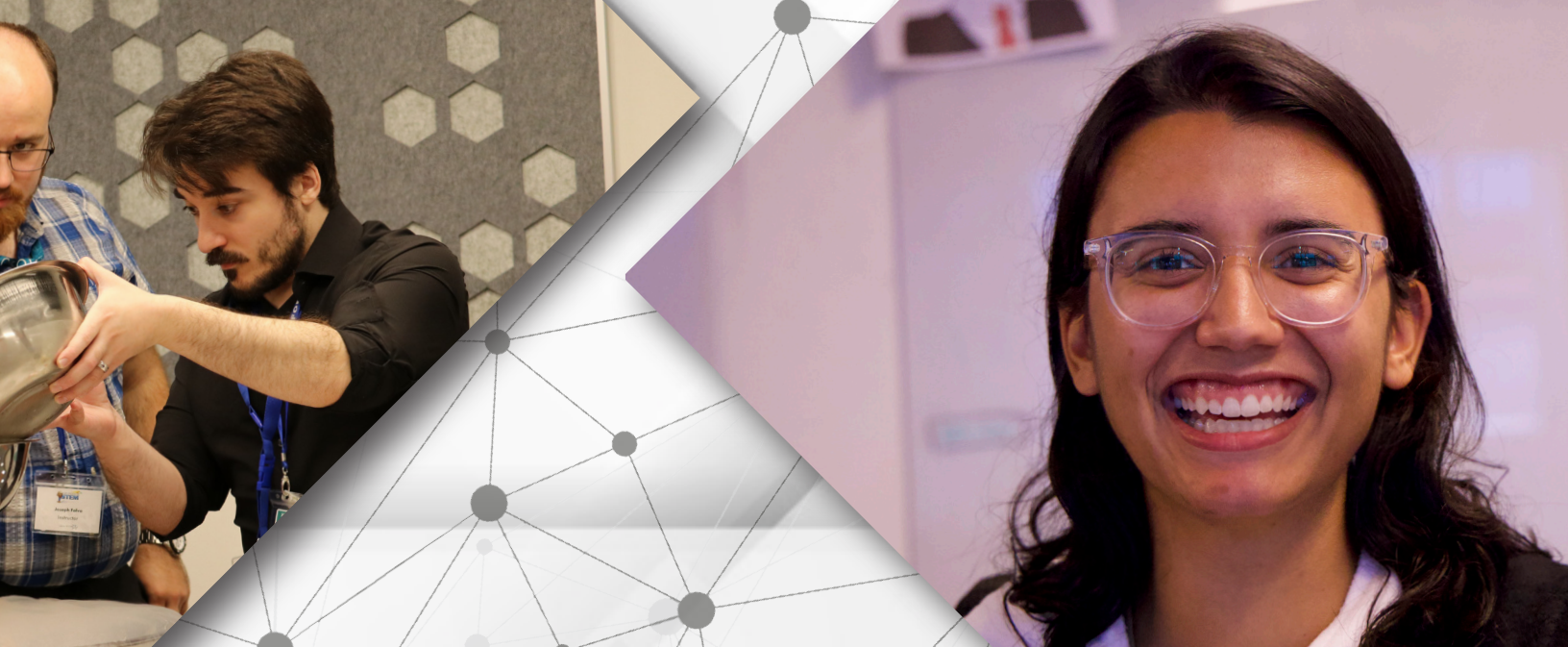


We Elevate **TALENT**

We Empower

We





INNOVATION

Enable **EXPERIENCE**



The Innovare Alliance

The Griffiss Institute, renowned for its innovation in talent and technology, is teaming up with some of the best in academia, industry, and government, setting the stage for a series of groundbreaking collaborative ventures.

By formalizing these partnerships through the signing of Memorandums of Understanding, their aim is to synergize efforts in fostering opportunities within our communities, whether it's through exemplary education, cutting-edge research

endeavors, or venturing into entrepreneurship.

Through this initiative, members will gain unprecedented access to experiential learning and venture development opportunities. The Innovare Alliance is committed to providing the resources, mentorships, and collaborative networks necessary to bring entrepreneurial visions to life.

Looking ahead, the Innovare Alliance will stand as a beacon of progress, collaboration, and innovation.

Together, the Griffiss Institute, along with our existing partners – the Air Force Research Lab Information Directorate, Oneida County, City of Rome, State University of New York, CNY Defense Alliance, NYSTEC, Rochester Institute of Technology, Binghamton University – and now, Le Moyne College, we will accelerate the development of emerging technologies and foster an ecosystem that supports the growth and prosperity of our region.

Innovare Alliance Members



State University of New York





anastius Kircher, S.J.



Building a Thriving Community



The Griffiss Institute has cultivated a network of strategic community partnerships that bolster our mission.

A cornerstone of the Griffiss Institute's partnership strategy is its collaboration with educational institutions. By teaming up with national universities, local community colleges, and other schools, the GI helps advance research, provide internships, and facilitate technology transfer.

Our partnership with federal, state, and local governments, notably the Air Force Research Laboratory (AFRL) Information Directorate, is a testament to our commitment to national security and economic development. These collaborations not only enhance national security capabilities but also bring

substantial federal funding and projects to the local economy.

The GI's collaboration with both established companies and startups is central to driving economic growth and technological innovation. By providing resources such as office space, mentorship, and access to research facilities, we support the entrepreneurial ecosystem. These partnerships help transform innovative ideas into viable businesses, thereby contributing to a dynamic and diversified local economy.

Collaborations with non-profit organizations focus on community development, workforce training, and educational programs. These partnerships aim to enhance the quality of life in the region by addressing local needs and

preparing the workforce for high-tech jobs. Initiatives supported by these collaborations range from skill development workshops to community engagement programs, all designed to build a stronger, more resilient community.

Our strategic community partnerships are pivotal in fostering a vibrant, innovative, and economically robust region. Through these connections, the Griffiss Institute continues to drive technological innovation, support economic development, enhance educational opportunities, and strengthen community bonds, ensuring a brighter future for the region.

Catalyzing Innovation and National Security



The Griffiss Institute (GI) facilitates opportunities for funding to drive technological programs that support defense tech. We engage with policymakers and participate in legislative discussions to ensure that the interests of the research community and its partners are well-represented. Through these efforts, we have helped secure significant funding for various projects and initiatives, enabling sustained innovation and growth in defense technology.

Central New York's trajectory as a hub for innovation and technology received a significant boost with U.S. Senate Majority Leader Chuck Schumer and U.S. Senator Kirsten Gillibrand securing \$3 million in funding for the Griffiss Institute and

CNY Defense Alliance in Rome. This funding will support the construction of a new Smart-X Internet of Things collaborative lab, providing a platform for vendors and developers to experiment with smart technologies.

Gillibrand, alongside Lieutenant Governor Antonio Delgado and local leaders, announced the funding, emphasizing its role in nurturing the next generation of tech leaders in the region.

Griffiss Institute CEO Heather Hage highlighted the impact on both the future of central New York and local students, noting opportunities for defense contractors, commercial companies, and students. Gillibrand further emphasized

the potential for job growth in the Mohawk Valley and attracting entrepreneurs and organizations interested in SMART technology development. Delgado expressed excitement for the future, applauding the remarkable innovations already emerging from the Griffiss Institute. With a focus on impacting local, state, and national levels, the Griffiss Institute aims to leverage its technology innovations and the new lab's development for broader societal benefit.

The Griffiss Institute extends heartfelt appreciation to our local, state, and federal government leaders for their unwavering support in realizing the mission and vision of our institute. Your dedication and partnership have been instrumental in driving forward our initiatives and fostering innovation in our community. With your continued support, we are empowered to advance technology, cultivate talent, and contribute to the growth and prosperity of our region. Thank you for your ongoing commitment to the Griffiss Institute and the communities we serve.

Our Commitment to Collaborative Local Engagement

The Griffiss Institute (GI) plays a pivotal role in fostering community engagement through a variety of local initiatives. As a hub of innovation and economic development, we actively collaborate with local organizations, educational institutions, and businesses to support and uplift the community.

One of the primary focuses of the GI's community engagement efforts is enhancing educational opportunities. The institute partners with local schools and colleges to provide students with hands-on learning experiences and access to advanced technologies. These collaborations include internship programs, workshops, and mentorship opportunities that help students develop crucial skills for future careers in high-tech industries.

The Griffiss Institute is a key supporter of local entrepreneurs and small businesses. Through initiatives like the Innovare Advancement Center, the institute offers resources such as office space, research facilities, and expert mentorship to startups and emerging companies. These efforts stimulate local economic



growth by fostering innovation and helping new businesses thrive in the competitive market.

The GI is deeply involved in organizing and sponsoring community events that bring together residents, businesses, and organizations. These events often focus on technology, education, and workforce development, providing platforms for networking, learning, and collaboration. Examples include our HUSTLE Demo Day, Women Investing in Women, STEM camps, and public lectures that inspire and educate community members of all ages.



IAC Wins 2023 Best in Region



The Innovare Advancement Center, managed by Griffiss Institute earned the 2023 Best in Region award from the Federal Laboratory Consortium for Technology Transfer (FLC), underscoring its role in advancing national security, fostering economic growth, and driving innovation in the Northeast.

Located in Rome, New York, Innovare is a premier innovation hub for government, academia, and industry, focusing on cutting-edge research in artificial intelligence, machine learning, cybersecurity, quantum sciences, and small uncrewed aerial systems. Its achievements are rooted in strategic partnerships

with organizations such as the Air Force Research Laboratory Information Directorate (AFRL/RI) and the strong support of Oneida County, which continues to champion regional growth and technological advancement.

Guided by a Five-Year Strategy for open innovation, Innovare aims to strengthen global partnerships, launch entrepreneurial ventures, and advance intellectual leadership. With state-of-the-art facilities and collaborative spaces, Innovare empowers researchers and entrepreneurs to address critical challenges, positioning the region as a leader in the global innovation ecosystem.



Federal Laboratory Consortium
for Technology Transfer



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The Griffiss Institute (GI) is the hub where talent and tech come together to amp up the United States Department of Defense and connect with academic, government, and industry leaders worldwide.

We've been at it since 2002, backing up the Air Force Research Laboratory Information Directorate and boosting the Mohawk Valley region and beyond. With our top-notch programs, we're all about building up diverse teams and making big waves in tech and the economy.

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