

# **The Connecticut Tech Talent Accelerator**

PARTNERSHIPS CLOSING THE TECH SKILLS GAP

## **Executive Summary**

Connecticut must ensure that its workforce remains competitive and that it continues to be a place where individuals and organizations thrive economically in a time of rapid and constant technological change. With an eye on the future, its leaders have recognized that they must fully leverage its higher education ecosystem in collaboration with businesses in the state to meet the growing demand for tech talent. In 2022, it provided funds to support the Tech Talent Accelerator (TTA), led by the New England Board of Higher Education (NEBHE) and the Business-Higher Education Forum (BHEF). This investment catalyzed the development of seven business-higher education partnerships to create new tech talent pathways in high- demand fields like cybersecurity, mobile application development, and game design.

In 2023, after a second round of state funding, TTA added six new partnerships, expanding its reach into additional fields like cloud computing, biostatistics, and professional skills for neurodiverse tech workers. Together, the partnerships have created training programs to equip learners with in-demand skills validated by Connecticut businesses and learners are already working in internships and full-time roles.

With continued investment, TTA is poised to build upon those efforts and scale its impact by focusing its training programs on emerging technologies like artificial intelligence (AI) and quantum computing, providing tuition assistance to increase enrollment and serve low-income and historically underrepresented groups, and streamlining transfer pathways for associate-degree holders in tech fields. By fostering existing partnerships and engaging new ones to address the changing landscape of high-demand technology needs, Connecticut can become a replicable model and leader in training and retaining skilled tech talent.

## THE CHALLENGE

Connecticut businesses publish more than 2,600 job postings for tech openings each month, 350 more per capita than the national average. However, it is a challenge for businesses to source talent for those roles, both in terms of attracting the number of candidates needed and aligning the skillsets of those candidates with rapidly emerging new tech roles. Connecticut's colleges and universities currently do not produce enough graduates to keep pace with demand, and the state struggles to attract sufficient skilled professionals from other regions.<sup>2</sup> In 2022, postsecondary

institutions in the state graduated only enough tech students to fill half of the open entry-level positions.1

Connecticut businesses have also noted a historical "misalignment between higher education curricula and the practical skills needed in the workplace." 3 To close that gap, the state has recognized the value of high-impact business-higher education partnerships that validate in-demand skills, create new pathways for tech talent, and increase the number of learners advancing through their programs that Connecticut employers can eventually hire as graduates.

## CLOSING THE TECH SKILLS GAP:

# An Accelerated Approach

In response to these challenge, the Business-Higher Education Forum and the New England Board of Higher Education developed and launched the Tech Talent Accelerator in 2022 with funding from the Connecticut Department of Economic and Community Development. TTA is designed to:

- Develop and sustain high impact partnerships between business and higher education;
- Convene businesses to identify in-demand skills, credentials, and hiring needs;
- Increase the supply of tech workers in Connecticut with in-demand skills and credentials; and
- **Provide technical assistance** to higher education institutions so they can rapidly:
  - create new short-term training programs that lead to good tech jobs, and
  - · enhance existing curricula with industry-recognized credentials and validated knowledge, skills, and abilities.

## **TECH TALENT ACCELERATOR 1.0** (TTA 1.0)

In the first year of the Tech Talent Accelerator (September 2022 to June 2023), it established seven business-higher education partnerships to create or update short-term training or degree programs, including embedding in-demand, industry-recognized credentials (IRCs) into the curricula. The initial cohort of partnerships built new tech pathways in cybersecurity, data analysis, mobile application development, and game design. The credentials offered ranged from the University of New Haven's bachelor's degree in computer science with a game design and development concentration to the University of Bridgeport's 12-week online cybersecurity certificate program. (See more on page 9 and 10.)

To participate in TTA, higher education institutions submitted proposals that identified a solution to solve a technology skills gap in Connecticut's workforce. The partnerships were selected through a competitive process that evaluated each program's:

- Proposed outcomes and impact;
- Collaboration with one or more identified business partner(s);
- Sustainability and scalability plan; and
- Ability to serve diverse learners.

The proposals also described the labor market demand for the industry-recognized credentials, knowledge, skills, and abilities that the program planned to provide. Selected institutions were awarded grants to support faculty professional development and revamp or build new courses, as well as financial assistance to learners to help pay for training materials and IRC testing costs.

## **TECH TALENT ACCELERATOR 2.0** (TTA 2.0)

The success of TTA 1.0 led the state to award BHEF and NEBHE a second round of funding. **Tech Talent Accelerator 2.0, which operated from September 2023 to October 2024, supported a total of 12 business-higher education partnerships** that created additional programs in cybersecurity, cloud computing, biostatistics, professional skills for neurodiverse tech workers, and other areas.

TTA 1.0 partnerships were able to continue their work from the previous year, continuously updating curriculum, expanding partnership activities, and developing new programs. The new cohort of six business-higher education partnerships followed the same process of the Purposeful Partnerships framework learned from their TTA 1.0 peers. (See more on page 3.) And they increased the number of pathways available for more learners to prepare for tech jobs offered by Connecticut employers.



As partners worked to implement their programs, they also participated in regular Community of Practice meetings, hosted by BHEF and NEBHE. The Community of Practice meetings provided a forum for businesses to identify key in-demand knowledge, skills, and abilities; discuss program models like micro-credentials; promote high-value partnership activities like work-based learning, credit for prior learning, and guest lectures from business; and explore programs and partnerships' sustainability plans. Additionally, partners developed relationships across the cohort, allowing them to share challenges in implementation, seek advice from peers, engage in professional development, and learn best practices from across the country.

## THE PURPOSEFUL PARTNERSHIP

# Creating Purposeful Partnerships

The Business-Higher Education Forum's <u>Purposeful Partnership framework</u> consists of eight steps that guide business and higher education institutions through the process of building a partnership to develop new program credentials. The framework was developed under a five-year grant from the National Science Foundation to create, replicate, and evaluate partnership models in service to diverse talent ecosystems. The tested framework was used by the TTA partnerships in the following ways.

## 1

## **ANALYZE JOB MARKET LANDSCAPE AND SKILLS**

The first step in the Purposeful Partnership framework is to analyze the workforce needs in the state and identify gaps between the skills professionals have and the skills businesses need.

TTA Implementation: In their proposals, TTA partnerships established, though labor market data, how their program would fill an in-demand talent gap in Connecticut. BHEF then provided each partnership with a customized labor market analysis report, specific to their program. The report consisted of a detailed assessment of the in-demand skills, occupations, and certifications listed in job postings to inform industry-aligned curriculum development.

## 3

## **MAP SKILLS AND CURRICULAR GAPS**

The higher education institution partners then compare the business-validated competency maps to their course offerings and degree programs, examining where they need to refine or eliminate courses or add new ones to their curriculum.

TTA Implementation: Each higher education institution used the competency maps and/or in-depth feedback from its business partners to build its curriculum and select key industry-recognized credentials to embed into its program. For example, the University of St. Joseph recognized that while it was offering courses in computer and data science, which were essential to its business partner's needs, those courses lacked integration of specified training in Al and cloud computing—two KSAs also identified by its business partner. The university then adjusted its curriculum accordingly. (See more on page 11.)

## 2

## **PROFILE COMPETENCIES AND SKILLS**

The next step is for the business partners to validate the knowledge, skills, and abilities (KSAs) most important for an ideal job candidate and create competency maps for their in-demand roles.

TTA Implementation: As a starting point, TTA partnerships leveraged BHEF's business-validated competency map frameworks for data analytics, cybersecurity, software development, and crosscutting professional skills for technical roles. For concentrations like game design or mobile app development, they used the software development framework and worked closely with their business partners to extract domain-specific KSAs. Then, through KSA workshops, the business partners evaluated those frameworks and eliminated, added, or reframed the KSAs listed to fit their specific needs.

## 4

## **SELECT ACADEMIC CREDENTIALS**

With input from the business partner, the higher education institution determines what pathway would be best to train learners on the business-validated KSAs—whether a baccalaureate, applied master's, or associate's degree, or a short-term or industry-recognized credential.

TTA Implementation: The TTA partnerships each identified the pathway that would create the most effective way for learners to gain in-demand KSAs, many choosing to embed industry-recognized credentials into their established degree programs. The programmatic vehicles and industry-recognized credentials they chose included the Unity Programmer Certification, Google Data Analytics Certificate, AWS Cloud Computing Certificate, institution-issued badges, noncredit certificates, concentrations within degrees, and revamped degree programs.

## **INTEGRATE HIGH-IMPACT PARTNERSHIPS**

Business and higher education institutions then identify high-impact partnership activities to implement, such as work-based learning opportunities, mentoring programs, advisory boards, and guest lectures from the business partner.

**TTA Implementation:** For example, Pleiadian Systems hired a cohort of students from its partner, the University of New Haven, for an internship in which they worked on real-world projects and were able to apply their learning. (See more on page 10.)

## 7

## **UPDATE CURRICULUM CONTINUOUSLY**

As technology rapidly and continually changes, the skills that employees need will evolve, so the partnerships establish a plan for continuously updating KSAs.

TTA Implementation: After the first year of TTA, the partnerships that had been established received additional funding to iterate on their programs. Mitchell College, for instance, responded to the need for improved professional skills and decided to expand their Mitchell Hub to include training on those skills with a special focus on neurodivergent learners. (See more on page 7.)

## 6

## **DEVELOP INDUSTRY-ENGAGED PROGRAMS**

The partnerships develop a strategy for continued involvement and assessment of their programs' success, including identifying the return on investment for the businesses involved.

TTA Implementation: TTA 2.0 enabled first-round partnerships to continue to work together on a consistent basis and develop a muscle for fostering their partnerships. The monthly Community of Practice meetings brought them together for networking and peer-learning experiences focused on a range of topics—highlighting grant opportunities in the state, working through a problem concerning student recruitment strategies, and spotlighting sessions on best practices in work-based learning, among numerous others.

## 8

## **CHANGE TALENT DEVELOPMENT AND RECRUITMENT**

Finally, business partners assess their talent development and recruitment models, including reexamining job postings to more clearly signal their needs or introduce more high-impact practices. They revise and adapt practices and processes as needed.

**TTA Implementation:** The TTA partnerships showed the participating businesses, which are now seeing a return on their investments, the value of collaborating with higher education. The business partners broadened their recruitment strategies, developed new upskilling and reskilling pathways for their employees, and offered more work-based learning opportunities.

## **IMPACT**

In two years, the Tech Talent Accelerator has developed 15 new or updated business-validated pathways with 26 Connecticut businesses. TTA courses have enrolled more than 300 learners (not de-duplicated) in high-demand areas like cybersecurity, cloud computing, data analytics, and more. (See TTA Partnership Spotlights for more details.) Learners from TTA 1.0 who have completed their courses have already obtained more than 36 internships and job placements, made possible by the collaboration between business and higher education. And that number is sure to increase as all TTA programs begin enrolling and graduating students.

TTA has helped 12 public and independent colleges and universities to expand their partnership strategies, align curricula with in-demand skills, and network with other higher education institutions, businesses, and government entities across Connecticut. Businesses have created new pipelines for technology talent equipped with validated skills, as well as a replicable framework for working with higher education on future programs—enabling them to upskill and reskill their current workforce more rapidly.

## 15

New or updated businessvalidated pathways

## 26

Connecticut businesses participate in TTA

## 305

Course enrollments in high-demand areas

## THE POTENTIAL:

# Building on Connecticut's Tech Talent Pathways

Connecticut has prioritized workforce investments with initiatives such as CareerConneCT, Good Jobs Challenge, and Connecticut Health Horizons. The Tech Talent Accelerator has built on the success of those existing initiatives and played a vital role in connecting those and other statewide workforce development activities. BHEF works closely with the Capital Area Tech Partnership and Southwest Tech Hub to recruit and engage businesses in TTA.

BHEF and NEBHE also inform TTA partners of open grant opportunities that could help scale the impact of their programs. Charter Oak State College was able to braid TTA funds with a Good Jobs Challenge grant to enroll students in its TTA program, "CyberReady," at no cost.

The Tech Talent Accelerator is now a tested model for developing new tech talent pathways, and with continued investment, it is poised to create even broader impacts and build upon efforts to:

- Focus training on emerging sectors like artificial intelligence, quantum computing, and green technology.
- Provide tuition assistance to increase enrollment in tech fields and serve low-income and historically underrepresented groups at Connecticut institutions.
- Streamline transfer pathways in tech fields for associate-degree holders from Connecticut's state institutions.
- · Engage additional Connecticut institutions and business leaders in critical sectors across the state.
- Make Connecticut a leader in tech talent development that can share best practices of this replicable model.

The Tech Talent Accelerator has had great momentum in only two years, bringing together key players in Connecticut from higher education, business, and government to address the state's tech skills gap. Connecticut is ready to be a leader in developing and retaining tech talent and serve as an example of a best-in-class workforce investment that drives strong and lasting economic growth.





Credit: A program or course that offers academic credits that can contribute to fulfilling the requirements of a formal education credential, such as an associate's, bachelor's, or master's degree.

Noncredit: A program does not provide academic credit towards a degree or require admission into a higher education institution, allowing opportunities for participation from a diverse range

Short-term: Various 12- to 16-week training programs leading to a certificate of completion

Semesterly: Programs in which courses are offered on a semester-

# Tech Talent Accelerator Partnership Spotlights

**Albertus Magnus College** / Greater New Haven Chamber of Commerce / TTA 2.0 Applied Data Science Certificate

Albertus Magnus College, through the creation of its Applied Data Science Certificate, partnered with the Greater New Haven Chamber of Commerce to develop a focused training program for skills applicable in the biopharma industry. Employees of companies in that industry as well as students attending Albertus Magnus engage in a three-course, 12-week rigorous program that offers asynchronous training in applied data science and informatics.

Upon completion of the courses, learners will earn a certificate and badge in applied data science and are offered the opportunity to apply their skills in the real world through a capstone project with a partner business. To identify such businesses, the Greater New Haven Chamber of Commerce is working with Albertus Magnus in an advisory role. Beginning in October 2024, the college's applied data science certificate will provide both students and workers alike the necessary knowledge, skills, and abilities to gain opportunities in Biopharma through their data science for bioinformatics training.

Noncredit Pathway / Short-term / Enrolling October 2024



CyberReady Program

\_

After receiving a grant from TTA in 2023, Charter Oak State College, Connecticut's only public online college, began developing its new CyberReady cybersecurity program in spring 2024, which will become credit-bearing starting in the fall semester. With its industry partner, Travelers, Charter Oak has created a meaningful pathway through TTA for students to find careers in the cybersecurity field. Students from Charter Oak engage in instructor-led asynchronous courses based on the Google cybersecurity curriculum and receive institution credentials through the Credly interface. In addition, the curriculum also provides learners with the necessary KSAs to pass the exam to obtain a CompTIA Security+ credential.

Charter Oak recognizes, however, that not every learner may have the resources to prepare for or even take such courses and tests. Thus, it has combined TTA funding with financial support from the state's Good Jobs Challenge grant and its own institutionally-related foundation to provide what Charter Oak Director of Workforce Development Nancy Taylor calls "wraparound support." Charter Oak's three-pronged approach has allowed it to use the TTA grant to design the course, the Good Jobs Challenge grant to pay for 25 students' class costs, and its own foundation's grant to offset the cost for students of sitting for the IRC exams.

In addition, learners who complete all necessary coursework may interview with Travelers for their Engineering Development Internship Program (EDP), which allows learners to put their academic training into action. From the first day of the program, Charter Oak is giving its learners unparalleled opportunities for success and support to gain the necessary KSAs to thrive in the cybersecurity field.

Nonncredit Pathway / Short-term / Enrolling Fall 2024



As part of TTA 2.0, Connecticut College is assembling a new information technology pathway for students in fall 2024. Called the Certified Information Systems Auditor Pathway, the program's mission allows the college's students to "address a multisector workforce gap in audit control, assurance, and security." The new cohort will receive in-person instruction as part of for-credit classes, including accounting, computer science and data analytics, and economics. Through the pathway, students can earn a Certified Information Systems Auditor (CISA) credential, an IRC often needed for securing jobs in information technology.

In addition, through Connecticut College's industry partner, Accenture, students will get to hear from industry executives and speak directly with Accenture employees applying these skills in a day-to-day capacity. Accenture is also offering Connecticut College students apprenticeship interviews, creating a pathway from classroom to career through the business-higher education connection. The curriculum developed through TTA is focused on providing learners with concrete, applicable skills needed in the field that will make these students desirable candidates to many Connecticut employers seeking qualified information technology talent.

Credit-bearing Pathway / Semesterly / Enrolling Fall 2024











## **Connecticut State Colleges & Universities** / TTA 1.0

The Connecticut State Colleges and Universities participated in TTA 1.0 to increase its capacity for delivering tech training aligned to industry needs. CSCU created a community of practice for selected faculty members to engage in professional development, including earning industry-recognized credentials and learning how to embed those skills into the curricula.

## Fairfield University / Vancord / TTA 2.0

Cybersecurity Bootcamp

\_

Fairfield University has developed a new cybersecurity bootcamp through its involvement with TTA, with their first cohort completing the bootcamp in summer 2024. The bootcamp focuses on implementing KSAs validated by the university's industry partner, Vancord, such as programming fundamentals, cloud fundamentals, and cybersecurity basics. With that emphasis, the kickoff cohort of around 20 learners have earned digital badge credentials that verify for employers the specific applicable skills they learned through the intensive bootcamp.

Fairfield University and Vancord will continue their partnership and seek opportunities to improve the bootcamp and ensure that the content includes the transferable skills that employers in cybersecurity demand. Beyond the bootcamp, its curriculum will be incorporated into Fairfield's pre-existing certificate and master's program in cybersecurity, allowing even more students at the university to receive industry-validated cybersecurity training that yields qualified applicants for the workforce.

Noncredit Pathway / Short-term / Enrolling Summer 2024



# Mitchell College / Cerberus Enterprise Software; INsrcD / TTA 1.0 + 2.0 Mitchell Hub: Digital Innovation & Educational Excellence

Mitchell College, which was part of TTA's original cohort, has developed a program focusing on professional skills in technology. In 2023, Mitchell launched its original iteration of the Mitchell Hub, offering skill-building and short-term certification programs in fields like information technology and cybersecurity.

More recently, as part of TTA 2.0, the Mitchell Hub has expanded its scope to include professional skills like time management, communication, and management, with a special focus on benefiting neurodivergent individuals who think, work, and interact in different ways and their employers. As a result of this refined focus, Mitchell has launched two new courses, titled "Defining Neurodiversity" and "Neuroequity in the Workplace."

Industry partner INsrcD beta-tested the "Neuroequity in the Workplace" course and collaborated with Mitchell College to identify the professional skills that are paramount in the technology and cybersecurity space. With its professional-skills and technology-focused courses and its relationship with INsrcD, the Mitchell Hub is providing unparalleled opportunities for learners and workers to succeed in the Connecticut tech sector.

Noncredit Pathway / Short-term / Ongoing Enrollment









Practical, Hands-on Healthcare, Cyber Risk-Management Course Introduction to Ethical Hacking, Operational Reconnaissance, and Penetration Testing Course Introduction to Cybersecurity Risk in FinTech

\_

Quinnipiac University, a TTA university from the program's inception, is now enrolling its sixth cohort of learners. In the first cycle, Quinnipiac saw significant success, with 15 learners completing its new cybersecurity and healthcare program, developed through their TTA 1.0 grant. Additionally, nine learners completed an initial penetration testing and ethical hacking program.

The latest offering, titled "Introduction to Cybersecurity Risk in FinTech," will run in the 2024 fall semester. The programs will be available to both enrolled Quinnipiac students and non-matriculated learners, and those who complete them will receive an institutional badge available through Credly. In the penetration testing area, students will be able to sit for the CompTIA PenTest+ exam.

With its broad reach through three independent cybersecurity fields, Quinnipiac has engaged over 6 industry partners who have served as key advisers in helping frame the university's programs, including Middlesex Health, IGT, and COCC. To date, more than 100 learners have enrolled and completed these three courses. Quinnipiac is excited to continue expanding its program even further. It has set the tone for the success TTA can provide, both in educating students with actionable KSAs and upskilling workers to provide them future opportunities within the industries where they already work.

Credit-bearing and Noncredit Pathways / Short-term and Semesterly / Active Program Since Summer 2023

## **Southern Connecticut State University** / Ancera / TTA 2.0

C^3LOUD Program

Southern Connecticut State University is currently designing a new cloud computing pathway called the C^3LOUD (Cloud Computing Certificate of Learning Occurring in an Undergraduate Degree) Program. This program allows students to use Amazon's AWS non-credit-bearing Cloud Computing certifications to count as credit in Southern's information systems concentration within its computer science bachelor's degree.

On a larger scale, Southern is introducing a more symbiotic relationship between IRCs and credit. Not only will students be able to earn course credit and IRCs simultaneously through an embedded curriculum, but those enrolling with previously completed IRCs will receive course credit as part of the Credit for Prior Learning program currently used across the state university system.

Southern is working with industry partner Ancera, which has been instrumental in guiding Southern with insights into the IRCs they deem useful in potential employees. Beyond the development stage, this partnership will also allow those enrolled in the program to receive career advice from key staff members, as well as gain potential internship opportunities.

The C^3LOUD Program will initially be part of the Southern's pre-existing bachelor's in computer science, but the institution plans also plans to allow non-computer-science majors to receive a certificate in cloud computing. Additionally, Southern is designing the program and its implementation so that it can be easily extendable to other popular IRCs, such as those in cybersecurity or Al. Ancera and Southern Connecticut State University are working diligently to have this exciting new program up and running soon.

Credit-bearing & Credit for Prior Learning Pathways / Semesterly / Not Currently Enrolling



**6+**Business Partners







\_

The University of Bridgeport have developed a cybersecurity certificate program that gives learners the opportunity to receive institutional credentials as well gain IRCs like CompTIA Networks+. The program, which completed its first term in fall 2023, saw a cohort of 30 students enroll in three courses. The 12-week online curriculum focused specifically on the competencies and KSAs in demand in the local cybersecurity industry. Upon completing each of the courses, the learners receive a certificate of completion, which means that the 15 students who have since fully finished the course will have four new IRCs—one for each course, as well as a final certificate denoting completion of all required steps of the program.

Dr. Khaled Elleithy, the cybersecurity program director and dean of Bridgeport's College of Engineering, Business, and Education has noted, "Throughout the program, students developed strategic knowledge of security models, risk assessment, secure systems development, and crisis management, as well as legal, regulatory, and compliance issues."

Besides receiving standard classroom training, those enrolled in the program have benefited greatly from the strong relationship with the university's industry partners. Cherie Griffith-Dunn, CEO of cybersecurity firm CYPROTECK, has routinely visited classes to provide insight on the cybersecurity world and what she as an employer looks for in new hires. Further, CYPROTECK has hired multiple students out of the program and regularly sends its own employees through the three-course curriculum to be upskilled. The University of Bridgeport plans to continue its strides into TTA 2.0, further enrolling learners and strengthening its bonds with CYPROTECK Inc.

Noncredit Pathway / Semesterly / Active Program Since Fall 2023

## University of Connecticut—Stamford Campus / Synchrony / TTA 2.0

Cybersecurity Bootcamp

In spring 2024, the University of Connecticut at Stamford introduced a new independent study program with an emphasis on cybersecurity. The seven students involved in its first iteration worked towards receiving the Google Cybersecurity Certificate at the end of the term. Completing modules through Coursera, students had relative flexibility in working through the curriculum on their own time. As a result of their independent study, they gained valuable skills proficiency in SQL and Linux software in addition to a broader overview in the foundations of cybersecurity. UConn-Stamford hopes to see those students thrive in the workforce thanks to the skills gained through the program, and it looks forward to offering more students a similar opportunity in the coming semesters.

Credit-bearing / Semesterly / Active Program Since Spring 2024











Mobile App Development

\_

The University of Hartford began offering courses in mobile app development in spring 2024 as part of its three computer science programs. After receiving initial TTA funding to either update or create a new STEM-based curriculum, UHart designed this unique pathway for computer science students to be recognized as entry level, full-stack engineers with an emphasis on mobile app development. Within these courses, students learn basic to advanced programming concepts that allow them to specialize in mobile app development for either Apple iOS or Android devices.

Those enrolled in the mobile app development courses have not only received course credit, but have also had the chance to hear from key staff members at the industry partner, Infosys, who have offered valuable insights on how the KSAs learned through mobile app development courses can be applied in the workforce. In the future, the university plans to strengthen its connection with Infosys and other tech industry partners to create a pathway for UHart students enrolled in the mobile app development courses to employ their newfound abilities beyond the scope of the classroom.

Credit-bearing Pathway / Semesterly / Active Program Since Spring 2024



Arsome Technology Group, LLC; Pleiadian Systems Corporation; SphereGen / TTA 1.0 + 2.0 Game Design and Development Concentration

The University of New Haven helps undergraduate students gain classroom and real-world instruction in the complex and growing field of video game design and development through its bachelor of science in computer science with a game design and development concentration. Thanks to the university's robust network of industry partners—including Pleiadian Sytems, SphereGEn, and Arsome Technology Group, LLC—multiple New Haven students from the original 2023 cohort have gone on to obtain internships and gainful employment.

Pleiadian Systems, a producer of educational virtual reality software, has hired multiple interns in full-year capacities, allowing students to take the information they are learning through the TTA program and apply it in the real-world situations. The feedback of those students, shared among the University of New Haven, Pleiadian, and the entire TTA cohort through Communities of Practice meetings, allows every party to regularly monitor and tweak the partnership to strengthen it.

Following initial success, the University of New Haven is looking to expand this program's reach to provide even more opportunities. Early discussions with nearby Manchester Community College have suggested that a robust pathway might open that allows students currently receiving their associate's degrees to then engage in the game design and development concentration before connecting with a partner industry.

Credit-bearing Pathway / Semesterly / Active Program Since Fall 2023





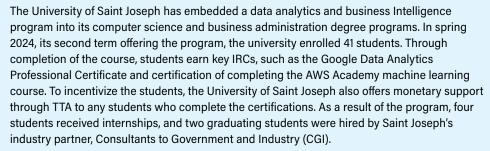








University of Saint Joseph / Consultants to Government and Industry (CGI) / TTA 1.0 + 2.0 Data Analytics & Business Intelligence Program



St. Joseph's has greatly benefited from this collaboration with CGI's consultants, who speak with students in the program and serve on its advisory board. With a successful semester complete, the program, in conjunction with CGI, will continue providing students with the KSAs needed to thrive in complex fields such as data analytics, machine learning, and cloud computing by continuously updating the curriculum and broadening the pathway to employment at local businesses.

Credit-bearing Pathway / Semesterly / Active program Since Spring 2024





## **ABOUT BHEF**

The Business-Higher Education Forum (BHEF) is a national network that connects pioneering corporate and higher education leaders to co-develop solutions that address talent gaps. BHEF empowers and catalyzes collaborations that deliver accelerated, inclusive, and effective solutions across education and work.

Business and university leaders join BHEF to lead innovation that meets the changing talent needs of learners, workers, and businesses. For our members and partners, BHEF:

- Convenes action-oriented summits and roundtables:
- Rapidly prototypes, implements, and scales talent solutions that bridge learning and work;
- Illuminates emerging talent needs and skills gaps; and
- Advocates for transformative business-higher education partnerships.

## **ABOUT NEBHE**

The New England Board of Higher Education advances equitable postsecondary outcomes through convening, research and programs for students, institution leaders and policymakers.

It works across the six New England states to help leaders assess, develop, and implement sound education practices and policies of regional significance; to promote regional cooperation and programs that encourage the efficient use and sharing of educational resources; and to strengthen the relationship between higher education and the economic well-being and quality of life in New England. Visit nebhe.org.

## **ACKNOWLEDGEMENTS**

This initiative was made possible thanks to the funding from the Connecticut Department of Economic and Community Development and support from the Connecticut Office of Workforce Strategy.

## **AUTHORS**

Candace Williams, Director of Regional Initiatives, **Business-Higher Education Forum** 

Madison Myers, Manager of Workforce Partnerships, Business-Higher Education Forum

Owen Simon, Programs Intern, Business-Higher **Education Forum** 

- Lightcast™, (2024), Retrieved August 2024,
- P20 WIN. Comprehensive Study on Technology Talent in Connecticut, P20WIN Governing Board, 2018, www.theccic.org/Customer-Content/www/CMS/files/Tech\_Talent\_Study\_1-25\_final.pdf.
- West, Debra, "Connecticut Needs More Coders, Engineers and Computer Science Pros," Connecticut Post, 17 June 2019, www.ctpost. com/local/article/Connecticut-needs-more-coders-engineers-and-14007119.php

bhef.com/techtalentaccelerator

© 2024 Business-Higher Education Forum | One Dupont Circle, Suite 360 , Washington, DC 20036